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A STUDY OF THE RELATIONSHIPS BETWEEN CERTAIN MEASURES OF GROWTH AND THE SELF-IMAGES OF ELEMENTARY SCHOOL CHILDREN

by

Donald Evans Hamachek

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in the
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CHAPTER I

INTRODUCTION

A. A Brief Historical Overview of the Psychology of the Self

"All the world's a stage," and psychologists are coming to learn that the descriptive accounts of each person's world are best arrived at by an analysis of the central character, the principal actor; namely, the self. Frondizi (24) maintains that the modern conception of the self began in the 17th century with Descartes's discovery of the *cogito* or the self as a thinking substance. With Descartes pointing the way, the self was subjected to the rigorous philosophical examinations of such men as Leibnitz, Locke, Hume, and Berkley. As psychology emerged from philosophy as a separate entity, the self, as a theoretical construct, moved along with it. Indeed, fifty years ago a psychological theorist would have been hard pressed to write a psychology that did not deal in one way or another with the self. Such keen thinkers as James (33), Titchener (79), Hall (27), McDougall (48), Baldwin (7), and many others, posited a self or ego as a conception without which psychological theory just would not make sense. However, as the tides of behaviorism swept the shores of psychological thinking during the first forty years of the 19th century, the self all but disappeared from learned psychology. The behavioristic emphasis on the exclusively objective approach to psychological phenomena considered the self not

essential in formulating psychological theory. Only the influence of the European psychologist, Stern (74), the psychoanalytic theorists, notably Freud (23), and Jung (38), and such sociologically oriented scholars as Cooley (17) and Mead (10), kept the self from becoming totally extinct in psychological thought.

According to Sarbin (12), the recrudescence of the self began with Allport's book on personality (13) and since that time the self has become more and more popular in psychological discussions.

B. Definition of Concepts

In order to avoid later confusion it is necessary at the onset to distinguish between the terms self, self-concept or self-image, ego, and personality, which constitute in the order given an ascending hierarchy of complexity and inclusiveness. In much of the literature these terms are frequently used interchangeably and it is sometimes difficult to ascertain their meanings in specific instances.

Self - As explained in Hall and Lindzey (23, p. 468), the term "self" has come to have two quite different meanings. The first meaning is the "self-as-object" definition because it refers to a person's attitudes, feelings, perceptions, and evaluations about himself as an object. In this instance, the self is what a person thinks of himself. The second meaning is referred to as the "self-as-process" definition. In this case the self is a doer, in that it consists of an

active group of processes such as thinking, remembering, and perceiving.

Ausubel (5) has this to say:

> The Self is a constellation of individual perceptions and memories consisting of the visual image of the appearance of one's body, the auditory image of the sound of one's name, images of kinaesthetic sensations and visceral tension, memories of personal events, etc. (p. 273)

James (32) succinctly says that a person's self is the "sum total of all he can call his." Or, in the words of Jersild (35),

> It is, for the person himself, like a distinctive center of experience and significance, which constitutes a person's inner world as distinguished from the outer world consisting of all other people and things. (pp. 179-80)

It will be noted that these definitions are all consistent with the "self-as-object" idea, which is how the self will be thought of in this study. That is, it is indicative of a person's attitudes, feelings, perceptions, and evaluations about himself as an object.

Self-Concept or Self-Image - According to Ausubel (5) the self-concept or self-image can be thought of in the following manner:

> It is an abstraction of the essential and distinguishing characteristics of the self that differentiate an individual's selfhood from the environment and other selves. In the course of development, various evaluative attitudes, values, aspirations, motives, and obligations become associated with the self-concept. (pp. 273-74)

In general, one's "self-image" as it finally evolves,

is a composite of thoughts and feelings which constitute a person's awareness of his individual existence, his perception of what he has, his conception of who he is, and his feelings about his characteristics, qualities, and properties.

Ego - Ausubel (5) suggests that the ego is:

> ....the organized system of interrelated self-attitudes, self-motives, and self-values.....which at any given stage of development constitutes the conceptual essence of the person's notion of himself as a functioning individual endowed with certain attributes related to role and status. (p. 274)

Symonds (78) states that "it is an active process for developing and executing a plan of action for attaining satisfaction in response to inner drives." (p. 4)

The ego, then, is defined specifically by its functions, particularly those functions of unifying, synthesizing, and organizing experience.

Personality - Personality is a still more inclusive term than ego and it has been endlessly defined in the literature. Allport (3) was able to list no less than 50 definitions drawn from philosophy, theology, law, and sociology, as well as from psychology. For purposes of concept differentiation, it must be said that personality includes all of the behavioral predispositions and characteristics of the individual at a given point in his life history. In the words of Prince (64), "personality is the sum total of all the biological innate dispositions, impulses, tendencies, appetites,

and instincts of the individual, and the acquired dispositions and tendencies." (p. 2)

Hence, the term "personality" properly refers to the entire psychological structure of the person and of the whole personality, the self is but one part, namely, that which the individual experiences as "self."

C. Viewpoints Regarding the Self

When at first man's curiosity about the causes of his conduct led him in quest of the answers, the most popular concept of an inner entity which shaped man's destiny was that of the soul. Hall and Lindzey (28) are quite explicit in stating that:

> .....no modern theory of self holds that there is psychic agent or "inner manikin" which regulates man's actions. Self theory represents a serious attempt to account for certain phenomena and to conceptualize one's observations of certain aspects of behavior. (p. 468)

For Symonds (78), the self is defined as the ways in which the individual reacts to himself. The self as he sees it consists of four aspects: (1) how the person perceives himself; (2) what he thinks of himself; (3) how he values himself; and (4) how he defends or enhances himself. (pp. 79-120) According to the phenomenologists, Snygg and Combs (72), the self is formed only as the individual defines his relation to the world around him. They go on to say:

> The culture in which we move is completely and inextricably a part of our experience as to overshadow almost all else in determining the nature of the phenomenal self developed by each of its members. Even our definitions and values with respect to the purely

> physical aspects of our environment are not left entirely to our own experience but are colored, interpreted, and valued one way or another by the culture into which we are born, as they are interpreted to us by the acts of the people who surround us. (p. 86)

Lundholm (44) theorized a subjective self, (i.e., "What I think of myself"), and an objective self, i.e., "What others think of me.") For Sarbin (70), the self is a cognitive structure which consists of one's ideas about various aspects of his being. One may have conceptions of his body (the somatic self), of his sense organs and musculature (the receptor-effector self), and of his social behavior (the social self). These selves are substructures of the total cognitive structure and are acquired through experience. Hence, they are empirical selves. Bertocci (9) suggests that:

> Every self senses, feels, needs, perceives, and thinks about the stimuli which impinge upon it; it relates them... but always with some uniqueness, to its own developing conception of itself. The self stands as its own unique active entity, ready to be influenced and sometimes forced by demands outside itself.... (p. 98)

Hilgard (30) states:

> ....we are impressed by the part which other people play in the shaping of the individual self. Because the parents and others who transmit the culture are themselves a part of the culture, there are uniformities in socialization, producing pressure in the direction of a model personality.
> ....there are (also) the individualizing influences of heredity, of birth accidents, of childhood experiences. The self....has full meaning only when expressed in social interaction. (pp. 355-56)

Mead (49), one of the most influential social philosophers of this century, postulated a socially formed self. In other words, he said that one responds to himself as others

respond to him. He goes on to say,

> The self....is not initially there, at birth, but arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to that process as a whole and to other individuals within that process. (p. 135)

There are further ways of describing and defining the self which add to the total picture. Murphy (53) states that the self is simply the person's perceptions and conceptions of his whole being, "the individual as known to the individual." (p. 996) Lecky (42) maintains that as soon as the child begins forming ideas and attitudes concerning himself he strives in the presence of others and in his own eyes to be himself (as he sees himself) and to live in accordance with his concepts, images, and attitudes regarding himself. He tries always to be consistent with himself. According to Sullivan (77), the self is made up of "reflected appraisals" of what others think. He goes on to suggest that the earliest experiences which influence the development of the self are experiences with people and it is on the basis of complex interpersonal relations, with experiences of approbation and disapproval, of reward and punishment, that the self is realized. This has much in common with the self theorized in Rogers' theory of personality which he says develops out the organism's interaction with the environment. "The organism reacts to the field (environment) as it is experienced and perceived." (68, p. 484)

Cattell (14) has hypothesized that there is an ideal

self and a real self and that both of these selves depend upon the process of self-observation. The real self is the individual as he would admit himself to be in his most rational moments, and the ideal self is the individual as he would like to see himself.

Examining the diversity of ideas and theoretical notions concerning the self, it is seen that the self is both constant and changeable, it is both a knower and a thing that is known, a perceiver and a thing perceived. Wenkart (81) states, "As a knower, the self is able to take a panoramic view of the total personality." (pp. 91-92) In a manner which summarizes rather well what has been expressed thus far, Wenkart goes on to say that the self includes the "....constant nature of an individual plus all that is conditioned by time and space and that is changeable." It provides a "...nucleus on which, and in which, and around which experiences are integrated into the uniqueness of the individual." (pp. 91-92)

D. Development of the Self

In order to more fully understand the self and see it in truest perspective, the emphasis must shift from an examination of what the self is to an examination to how the self emerges.

Stagner (73) has given a thoughtful and rather widely accepted analysis of the answer to this question. He postulates that the sources of the self-concept or self-image

include the child's (1) real characteristics; (2) description by adults; (3) comparison with others; and (4) inner pressures. (169-70) Each will be considered in turn.

1) "Real" characteristics refer to the objective characteristics of the child--his physique, his manner, his intelligence, his emotionality and sociability, his achievement.

2) No less important are the characteristics which he knows have been attributed to him by adults--his assimulation of what they think of him. As noted earlier, the self is created to some extent by what Sullivan (77) called "reflected appraisals." A child's self-image is, in part, what others think and feel about him. This is similar to Hilgard's (30) idea of the self taking full meaning only when expressed in social interaction, or of Mead's (49) postulation of a socially-formed self whereby one responds to himself as he sees others responding to him. It is also similar to Lundholm's (44) objective ("what others think of me") self and to Sarbin's (70) social self. Also seen here is an approximation to the phenomenal self of Snygg and Combs (72), which they say is formed only as one defines his relation to the world around him. The social influences on a child's self-image were also noted in the self described by Bertocci (9) which he states stands "ready to be influenced....by demands outside itself..." (p. 98) For examples of what is meant here Stagner (73) cites the following illustrations:

> A boy who has grown up surrounded by an admiring family may have a gross over-evaluation of his intelligence, attractiveness, and physical prowess. Conversely, parents who habitually, in the child's presence, speak of him as stupid, clumsy, or naughty, induce him to develop a correspondingly self-portrait. If he perceives himself as awkward, he will almost certainly do things in such a way as to merit the adjective. The self-image is of tremendous importance, because it operates as a controlling pattern for every day behavior. (p. 169)

3) Comparison of the self with others enters through comparison with members of groups in which the child finds himself. For example, a bright child with even brighter siblings is likely to think of himself as less smart than if he were closer to them in intellectual ability. Another child, actually average in height, may perceive himself as rather large if all of his classmates and friends happen to be short. A child's self-image is based partly on comparison with other persons.

4) Inner pressure as a determinant of the self-concept is created by the aspirations or ambitions the child holds. A boy, for example, who conceives himself as an athlete may be under self-pressure to try to fit this image. Inner pressures may, of course, be reinforced by outer pressures from adults and others who hold similar expectancies for the child.

These four factors play major roles in the emerging self-image of the child. Also noted was the important part that social interaction plays in shaping a child's image of himself. Apropos of the social interaction process in self development and in keeping with the notion that one's self-image

is a socially-formed product are the postulations of Olson and Hughes (60, 61, 62) who have developed a philosophy and theory of growth and development unique in its contributions toward understanding the psychology of each individual child. Explicit in developmental or "holistic" theory, as it has been variously called, is the idea that each child has his own inherent design for growth. Implicit is the idea that each child's inherent design for growth is one of the most important determiners of the kinds of responses, cues, appraisals, and acknowledgments he receives from the external world. In other words, a child's rejection or acceptance of himself is very largely influenced by his unique and inherent design for growth. This idea is further illustrated by Hughes (31) who writes:

> Let me emphasize here that rate of growth, a biological fact, does not produce problem children; failure to recognize the individuality of growth and to plan accordingly does lead to an injudiciously arranged environment that makes problems inevitable.

In summary, the self has been traced from its emancipation from philosophy and seen accepted into the realm of psychology as an idea as worthy of study and understanding as others, more concrete scientific psychological concepts. Although the definitions and conceptualizations of the self and the self-image are diversified enough, it has nonetheless been noted that the undercurrent of agreement as to the primary causative agents in self development are the child's interactions with, and responses from the external

world. Taking this a step further, it has been suggested that a child's inherent and irrevocable design for growth contributes to a large degree in influencing the kinds of responses he receives from the external world. If this is true, then there may be some agreement between the child's growth status, his self-satisfaction, and his self-image. It is the purpose of this study to find out. The study will seek to determine whether relationships exist between the growth status of children and four specifically defined dimensions of the self.

CHAPTER II

THE DEVELOPMENTAL HYPOTHESIS, STATEMENT OF THE PROBLEM AND DESIGN OF THE STUDY

The purpose of this section is: (1) to establish a theoretical framework for a workable hypothesis, and (2) to state the problem in terms of a plan of procedure for testing the hypothesis.

A. Basis for the Hypothesis

Ever since the 17th century when Descartes tried to divide the individual into two separate yet interacting entities, body and mind, and Wundt in the 19th century, who attempted to atomize the mind by reducing it into compartments of sensations, feelings, and images, there have been recurrent attempts to conceptualize the mind and body as a single unit and to treat the organism as a unified, organized whole.

It is generally agreed that organismic or holistic theory has made the most significant contributions in describing this "wholeness" of growth and behavior. Goldstein (25) and Angyal (4) have been instrumental in constructing the framework for holistic theory. The principal features of the organismic approach to personality have been listed by Hall and Lindzey (28) and for purposes of clarification relevant features are summarized here. (pp. 298-299)

1) Organismic theory emphasizes the unity, integration, consistency, and coherence of the normal personality.
2) It starts with the organism as an organized system

and proceeds to analyze it by differentiating the whole into its constituent parts. Organismic theory does not require an "organizer" because organization is built into the system from the beginning.

3) It tends to minimize the primary and directive influence of the external environment on normal development and to stress the inherent potentialities for growth.

4) Although organismic theory frequently makes use of the principles of Gestalt psychology, it has broadened its base by including within its scope everything that the individual is and does. Whereas the Gestalt topology is strictly psychological in character, organismic topology includes the whole biosocial system.

The developmental theory and philosophy of growth advocated by Olson and Hughes strongly adheres to the holistic approach to understanding growth and personality. As suggested by Olson (58), "....all types of growth (physical, mental, emotional, and social) occur in a child in some type of functional interdependency." (p. 94) Explicit here is the idea that the child does not grow in segmented parts, but that he grows all in one piece with all pieces having a reciprocal influence on each other. Not only does each child grow as a unified whole, but there is an individuality about his growth. As noted previously, each child's individual design for growth influences the kinds of responses he receives from his environment. This idea is further supported by Olson (56) who writes:

> .....individuality in rate and pattern of growing make for important differences in the way a child can meet the expectancies of his family, of his peers, and of school. Some meet such expectancies easily, while others of the same age become confused, worried, unsuccessful, disturbed, and resentful. (p. 70)

To further support and elaborate this point Hughes (31) writes:

> Differences in growth among children of the same age make for differences in reaction to the environment that is supplied. The slow-growing child is continually confronted with an environment for which he is not ready; he is unable and unwilling to comprehend more than a small part of it. As a result his life is made up largely of rejections and his attitude becomes highly negative. (p. 45)

Whole child theory assumes from the very beginning that the organism is a complex structure and that its behavior is the resultant of a vast network of determiners. It further assumes that psychological growth and biological growth exert co-mutual influences on shaping the developing organism. Even as the child presents himself as an organized whole, Frondizi (24) suggests that the self also presents itself ".....as an organized whole, an integrated structure, and experiences are related to one another not through but within the whole. This does not mean that the structure which constitutes the self cannot be analyzed and broken down theoretically, into less complex structures. It does mean, however, that we are in fact dealing with a unity that is formed upon substructures and the intimate and complex interrelation of these substructures." (p. 176)

Stagner (73) refers to these substructures of the self as "segmental selves" and states that these selves"....will be determined to a considerable extent by the role or roles imposed upon the individual..." (p. 171) In other words, an

individual's self-image will vary in accordance with the role he is in at the time. In keeping with this idea, this study attempts to break down the self into "parts" by defining four dimensions of the self which are in this instance, physical self-image, social self-image, intellectual self-image, and achievement self-image. Although this view of the child accords only a cross-sectional picture of his psychic life, Frondizi (24) suggests that such an approach can be very useful, "....for the '"longitudinal"' structure cannot be understood if one does not first have a transversal idea of each of the bundles that make it up." (p. 180) Hopefully, then, this will aid toward a more complete understanding of the child's total growth and, even more important, an understanding of the child's perception of himself as a growing organism and the influences these perceptions have on him.

Allen (1) in a very succinct observation, summarizes rather nicely the point that has been made here by stating that "All purposive actions, in which the organism acts as a whole, may be said to proceed from a self."(P. 268)

In summary, then, the major tenet of this study is that the self is not only a measurable part of the growing child, but that it is a reflection of, and bears relationship to the child's growth status. The child development laboratories of the University of Michigan have repeatedly demonstrated "....that the slow-growing child is continually

confronted with an environment for which he is not ready.... as a result his life is made up largely of rejections and his attitude becomes highly negative." (31, p. 45)

The following proposition, stated in terms of its tentative general conclusions, is suggested as a basis for the framework of this study:

> In children high status with respect to growth age is accompanied by a positive self-image and conversely, low status with respect to growth age is accompanied by a negative self-image.

The data accumulated on each child at the University School in Ann Arbor include a record of the child's physical, mental, and academic growth. Growth data are reported in age equivalents. Thus a child's height in inches or weight in pounds is converted into ages expressed in months. A child is spoken of as "12 years tall" if he has the average height of a twelve year old. Tables for conversion purposes have recently been published by Olson. (55, pp. 474-481)

In order to test the aforementioned proposition that high status children demonstrate a more positive self-image than do low status children, it is necessary to distinguish between:

a. fast growers and slow growers
b. high achieving children and low achieving children
c. children with high mental ages and those with low mental ages.

This was done by calculating the following arithmetic means for each grade and each sex:

a. Mean physical age - (Estimated from the average of of each child's height age, weight age, dentition age, and grip age.)

b. Mean education age - (Estimated from the average of each child's reading age, spelling age, language age, arithmetic comprehension age, and arithmetic reasoning age.)

c. Mean height age

d. Mean weight age

e. Mean mental age - (Arrived at by use of the Stanford Binet and Wechsler-Bellevue I.Q. tests.)

f. Mean reading age- (Stanford Reading Achievement test used to determine this in elementary grades.)

g. Mean organismic age- (Estimated from the average of each child's height age, weight age, grip age, dentition age, education age, mental age, and reading age.)

Growth data were accumulated at a standardized age for each of the five grades. These standard ages represent the average ages in each of the grades used in this study. In the third grade data was collected at nine years of age, (108 months); in the fourth grade at 10 years of age, (120 months); in the fifth grade at 11 years of age, (132 months); in the sixth grade at 12 years of age, (144 months); and in the seventh grade at 13 years of age, (156 months).

Children in this study were then designated as rapid

growers and rapid achievers on the basis of their position relative to the mean for each growth category. For example, boys above the physical age mean for boys in their grade were labeled as high status. Those boys below the physical age mean were labeled low status. This procedure was followed for each category in each grade. Separate means for each category were established for the boys and girls in each grade. Children above the means in each of these categories are referred to as "high status" and those below the means are referred to as "low status". The number of high and low status children in all grades and in all categories can be noted in tables 1 through 18 in Chapter three.

In order to more closely examine the relationships that may exist between growth and the self-image in the third through seventh grades, the following hypotheses are offered as a basis of discussion of the proposition stated previously. In order to maintain consistency in the statistical analysis of the data, the hypotheses are stated in the null form. They will be tested without regard for other variables and by holding sex, grade, and grade and sex constant. The hypotheses:

1. There are no significant differences in the percentages of positive <u>physical</u> self-image responses between high and low status children for:
   a. organismic age.
   b. physical age.

c. height age.

d. weight age.

2. There are no significant differences in the percentages of positive social self-image responses between high and low status children for:

a. organismic age.

b. physical age.

c. height age.

d. weight age.

e. mental age.

f. reading age.

g. education age.

3. There are no significant differences in the percentages of positive intellectual self-image responses between high and low status children for:

a. organismic age.

b. mental age.

c. reading age.

d. education age.

4. There are no significant differences in the percentages of positive achievement self-image responses between high and low status children for:

a. organismic age.

b. mental age.

c. reading age.

d. education age.

5. There are no significant differences in the percentages of positive total self-image responses between high and low status children for:

a. organismic age.

b. physical age.

c. height age.

d. weight age.

e. mental age.

f. reading age.

*g. education age.

B. Design of the Study

a. The Subjects

Subjects for this study were selected from the University School in Ann Arbor, Michigan. The population was drawn from the third, fourth, fifth, sixth, and seventh grades. Children in those grades who had attended the University School for at least three years were included in the study. Thus, all the children used in the study had in common longitudinal records of at least three years duration or more. The total number of children in attendance for three years or more, and used in the study was 100, of which

*The reader will note that all of the growth ages are not compared with the physical, intellectual, and achievement self-image questionnaires. On the basis of results obtained from pre-testing the sixth and seventh grade boys and girls, it was apparent that there were no relationships between physical age measures and intellectual and achievement self-image scores. At the same time, there were no relationships between reading ages, mental ages, education ages and physical self-image scores.

number 49 were boys and 51 were girls. The breakdown by sex for each grade was as follows:

Grade	Boys	Girls	Total
Third	9	8	17
Fourth	9	11	20
Fifth	10	9	19
Sixth	11	10	21
Seventh	10	13	23
Totals	49	51	100

b. The Method

In order to test the hypotheses, the following steps were taken:

1. Instruments were constructed to measure the four dimensions of the self needed for the study. These dimensions of the self are the physical self-image, the social self-image, the achievement self-image, the intellectual self-image, and a total self-image. The "total" self-image is the accumulative count of each child's four self-image scores. A questionnaire technique similar to that developed by Rogers (69) was used. Four different self-appraisal questionnaires were designed to measure the segments of the self-mentioned above. Except in the case of the physical self-image questionnaire, the questionnaires for the boys and girls in all grades are the same.

The physical self-image questionnaire was designed to measure the child's physical image of self. Questions are

asked regarding how tall, how heavy, or how dextrous a child is in comparison to others. The social self-image questionnaire was designed to get a picture of the child's image of self as a social being as indicated by his influence or dependence on others, and his socialability. The intellectual self-image questionnaire was designed to explore the child's image of his general ability as compared to the intellectual ability of his peers. The achievement self-image questionnaire was more specific in terms of probing the child's image of self in the areas of reading, spelling, writing ability, and arithmetic skills.

Samples of the four questionnaires are found on pages 105 to 109.

The possible response categories on each questionnaire cover two 10-point scales. Theoretically, the child's response to the "Am I just like him (her)?" question is indicative of his "attributed" self-image. That is, he indicates whether he is like the statement he reads or unlike it, or somewhere in between. On the other hand, the "Do I wish to be just like him?" response is a reflection of the child's "ideal" self-image, the self, he would most like to be.

2. The self-image questionnaires were pretested on a number of children from each grade to determine whether the questionnaires were clear and whether the directions were understood by children of the age for which they were to be used. Fifteen children, representing the five grades to be

used in this study, took part in the pretesting. The children used in pretesting were not included in the population to be studied. Appropriate changes in several instances in wording and directions were made as a result of the pretesting. Directions used in the administration of the questionnaires are found on page 103.

3. The following procedure was followed in establishing norms for the responses to the questionnaires:

a. Both the "Am I just like him (her)?" and the "Do I wish to be just like him (her)?" responses were counted to determine their distribution on the 10-point scale. These responses were counted for each questionnaire for each sex in each grade, in order to see how the responses were distributed on the scale. The results are shown in figures I through X on pages 92 to 101.

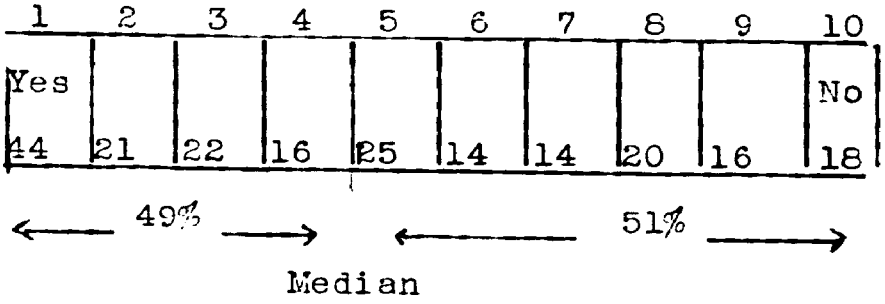
In cases of negative statements on the questionnaires, (e.g., John (Sally) is not very smart in school), the "attributed" self and "ideal" self responses tended to load on the "No" end of the scale. In order to standardize what would be negative self-image responses and what would be positive self-image responses, the "Yes" and "No" cells are simply reversed so that a positive response always occurs on the left side of the scale. Instances of these reversals are noted on the

sample questionnaires whenever they occur. In other words, all the positive self-image scores are on the left side of the scale and all negatives responses are on the right side of the scale. What constitutes a positive or negative resposes is explained in step "b."

As can be noted in figures II, IV, VI, VIII and X pages 93 to 101, the "Ideal" self-image responses are loaded on the positive end of the scale. Since there is little or no differentiation of responses between the high status and low status children with respect to their ideal self-image responses, only the "attributed" self-image responses are considered for normative standards and used in the analysis.

b. In order to determine what would constitute a positive or a negative response, the median for each questionnaire for each grade was calculated. For example, there are 11 boys and 10 girls or 21 children in the sixth grade. Each child achieves a score of ten pluses or ten negatives or any combination of the two totaling ten. Since there are 10 questions on each questionnaire, there is a possible total of 210 responses on each questionnaire for that grade. (Number of questions times the number of children.) For the sixth

grade, the number of responses per cell on the "attributed" self ("Am I just like him/her?") intellectual questionnaire were distributed in the following way:



Since approximately 50 percent of the responses lie between cells one and four, the median is at cell four. Hence, all responses, on the intellectual self questionnaire for the sixth grade, in cells one, two, three, or four are positive responses. All responses in cells five through ten are negative responses. Thus, all responses to the left of the median are positive and all responses to the right of the median are negative for all questions on that questionnaire. The medians for each questionnaire on the attributed self responses for each grade are noted in figures I, III, V, VII, and IX on pages 92 to 100.

4. In order to facilitate the management of the data the following steps were taken:

   a. Since there are 100 children in this study and four self-appraisal questionnaires per child,

400 questionnaires were scored by the method described above.

b. The percentages of positive responses for the high and low groups were calculated. These percentages can be found in the tables 1 through 18 in Chapter three.

c. In order to test whether there were any significant differences in the percentages of positive responses between high status and low status children, the following formula for testing the significance of differences between percentages was used:

$$Z = \frac{p_1 - p_2}{\sqrt{p_q \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

where $P = \frac{n_1 p_1 + n_1 p_2}{n_1 + n_2}$ and $Q = 1 - p$

d. A two-tailed cumulative normal distribution table found in Dixon and Massey (20, p. 383) was used to determine the probability limits. Significant differences were recognized only if they attained confidence at or beyond the 0.05 percent level.

e. The data were analyzed according to the following plan:

1) The self-image scores of high status boys and girls were compared with the self-image scores of low status boys and girls in all grades.

2) With sex held constant, the self-image scores of high status boys were compared with the scores of low status boys in all grades. The same procedure was followed for girls.

3) With grade held constant, the self-image scores of high status boys and girls were compared with the self-image scores of low status boys and girls in each grade.

4) With grade and sex held constant, the self-image scores of high status boys were compared with the scores of low status boys in each grade. The same procedure was followed for girls.

f. The operational form detailed above is to provide a method for testing the hypotheses previously given. Whenever significance is attained at or beyond the 0.05 percent level the null hypothesis is rejected.

The results of the study are presented in Chapter III.

CHAPTER III

RESULTS OF THE STUDY

This study was designed to test the general premise that among high status and low status children with respect to growth age, high status children show a positive self-image and low status children show a negative self-image. One hundred children in grades three through seven at the Ann Arbor University School were used to determine whether or not high status children give a significantly greater percentage of positive self-image responses on four self-image questionnaires than do low status children.[1]

In the order listed, the following variables were held constant; (1) the total group of high status and low status children were compared; (2) sex held constant; (3) grade held constant; (4) grade and sex held constant. In this way it is possible to note the continuity of significant differences as more variables are held constant. The results cited in this chapter represent rejections of the null hypothesis at or beyond the 0.05 percent level and are read directly from tables 1 through 18 in this chapter. These tables list the number of high and low cases, the number of responses, the percentage of positive responses, the Z scores, and the significant rejections of the null hypothesis

1. In the text and on the tables included in this chapter, the high status children; i.e., those above the means in the various growth categories, will be referred to as the "highs" and the low status children will be referred to as the "lows."

at either the 0.05 or 0.01 percent level of confidence.

A. Results with Nothing Held Constant

In the analysis of high status and low status boys and girls, the following relationships between self-image and growth appear to be present: (Complete statistical results with nothing held constant are found in table 1 on pages 32 and 33.

1. Boys and girls high in organismic, height, and weight ages gave significantly more positive self-image responses. (This is not confirmed for boys and girls high in physical age.)
2. Boys and girls high in mental, reading, and education ages gave significantly more positive social self-image responses. (This is not confirmed for boys and girls high in organismic, physical, height, and weight ages. Data for physical and height ages are in a negative direction.[1])
3. Boys and girls high in organismic, mental, reading, and education ages gave significantly more positive intellectual and achievement self-image responses.
4. Boys and girls high in organismic, mental, reading, education, and weight ages gave significantly more positive total self-image responses.[2] (Contrary to

1. Data in a negative direction means that low status children tend to give the greater percentage of positive self-image responses.
2. The reader will recall that the "total" self-image is simply the composite count of each individual's four self-image scores.

expectations, boys and girls low in physical age gave the greater percentage of positive total self-image responses.)

General Conclusion. Since 19 of the 26 null hypotheses are rejected at or beyond the 0.05 percent level of confidence, the general conclusion that the greater percentages of positive self-image responses are given by high status children is warranted. Contrary to expectations, there are some indications here that children low in physical age give the greater percentage of social and total self-image responses.

B. Results with Sex Held Constant

In this instance all the self-image scores of the high status boys are contrasted against the self-image scores of the low status boys in all grade to determine whether there are any significant differences in the percentages of their positive self-image responses. The same procedure is followed for the girls. Complete statistical results with sex held constant are noted in tables 2 and 3 on pages 36 to 39. The following relationships between positive self-image responses and growth status appear to be present:

1. Boys high in organismic, physical, height, and weight ages gave significantly more positive physical self-image responses.
2. Girls high in organismic age, but low in physical age gave significantly more positive physical

Table 1

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN ALL GRADES

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 48 L 52	480 520	61.0 45.6	4.89	**
Social	H 48 L 52	480 520	51.5 48.5	.949	
Intellectual	H 48 L 52	480 520	60.6 41.7	5.97	**
Achievement	H 48 L 52	480 520	60.6 41.0	6.21	**
Total Count	H 48 L 52	1920 2080	58.4 44.2	9.01	**
PHYSICAL AGE					
Physical	H 50 L 50	500 500	53.2 49.6	1.14	
Social	H 50 L 50	500 500	48.4 51.8	-1.07	
Total Count	H 50 L 50	2000 2000	50.2 51.2	- .760	
HEIGHT AGE					
Physical	H 55 L 45	550 450	59.1 45.8	4.19	**
Social	H 55 L 45	550 450	48.2 52.4	-1.47	
Total Count	H 55 L 45	2200 1800	52.1 49.8	1.45	
WEIGHT AGE					
Physical	H 45 L 55	450 550	59.6 46.7	4.03	**
Social	H 45 L 55	450 550	49.6 49.2	.089	
Total Count	H 45 L 55	1800 2200	55.1 47.7	4.64	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 1

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN ALL GRADES

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 51 L 49	510 490	55.9 45.5	3.27	**
Intellectual	H 51 L 49	510 490	64.5 36.3	8.93	**
Achievement	H 51 L 49	510 490	61.1 37.7	7.40	**
Total Count	H 51 L 49	2040 1960	60.1 42.0	11.49	**
READING AGE					
Social	H 45 L 55	450 550	54.4 46.5	2.49	*
Intellectual	H 45 L 55	450 550	61.5 41.8	6.21	**
Achievement	H 45 L 55	450 550	65.6 38.0	8.67	**
Total Count	H 45 L 55	1800 2200	60.1 43.7	3.25	**
EDUCATION AGE					
Social	H 44 L 56	440 560	55.5 45.4	3.24	**
Intellectual	H 44 L 56	440 560	66.6 39.0	8.68	**
Achievement	H 44 L 56	440 560	67.0 37.3	9.37	**
Total Count	H 44 L 56	1760 2240	74.0 61.9	12.14	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children

self-image responses. (Data for height and weight ages are in a negative direction.)

3. Boys high in mental age and girls high in organismic, mental, and education ages gave significantly more positive social self-image responses. (This is not confirmed for boys high in reading, and education ages, nor for girls high in physical, weight, and reading ages. Data for the boys in organismic, physical, height, and weight ages are in a negative direction. Data for the girls in height age are also in a negative direction.)
4. Both boys and girls high in organismic, mental, reading, and education ages gave significantly more positive intellectual and achievement self-image responses.
5. Boys high in organismic, physical, height, weight, mental, reading, and education ages gave significantly more positive total self-image responses.
6. Girls high in organismic, mental, reading, and education ages gave significantly more positive total self-image responses. (This is not confirmed for girls high in weight age.)
7. Contrary to expectations, girls low in physical and height ages gave significantly more positive total self-image responses.

General Conclusion Since, for the boys, 20 of the 26 null hypotheses are rejected at or beyond the 0.05 percent level of confidence, the general conclusion that the greater percentage of positive self-image responses are given by high status boys is warranted. Overall, the results are less conclusive for girls. However, the evidence is strongly suggestive that the girls high in organismic, mental, reading, and education ages have more positive intellectual and achievement self-images than girls low in those growth measures. There seems to be a trend for girls low on height and physical ages to give the more positive physical, social, and total self-image responses.

C. Results with Grade Held Constant

In this analysis, all the self-image scores of the high status boys and girls are contrasted against the self-image scores of the low status boys and girls in each grade to determine whether there are any significant differences in the percentages of their positive self-image responses. Complete statistical results with grade held constant are noted in tables 4 through 8 on pages 42 to 51. The following general conclusions regarding positive self-image responses and growth status appear to be present:

1. Third Grade Since only four of the 26 hypotheses are rejected at or beyond the 0.05 percent level, the general conclusion that there is no difference between the percentages of positive self-image

Table 2

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN ALL GRADES

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 21 L 28	210 280	63.3 45.0	4.11	**
Social	H 21 L 28	210 280	46.2 51.1	-1.06	
Intellectual	H 21 L 28	210 280	56.7 38.9	3.89	**
Achievement	H 21 L 28	210 280	52.4 33.9	4.09	**
Total Count	H 21 L 28	840 1120	57.7 42.2	5.53	**
PHYSICAL AGE					
Physical	H 25 L 24	250 240	58.8 41.7	3.78	**
Social	H 25 L 24	250 240	48.0 51.7	- .812	
Total Count	H 25 L 24	1000 960	50.8 44.4	2.84	**
HEIGHT AGE					
Physical	H 26 L 23	260 230	66.2 37.8	6.22	**
Social	H 26 L 23	260 230	48.1 51.7	- .225	
Total Count	H 26 L 23	1040 920	51.9 42.8	4.11	**
WEIGHT AGE					
Physical	H 24 L 25	240 250	68.3 38.0	6.72	**
Social	H 24 L 25	240 250	49.6 50.0	- .089	
Total Count	H 24 L 25	960 1000	54.5 41.0	5.92	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 2

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN ALL GRADES

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 25 L 24	250 240	54.4 45.0	2.08	*
Intellectual	H 25 L 24	250 240	56.8 35.8	4.64	**
Achievement	H 25 L 24	250 240	48.0 32.5	3.49	**
Total Count	H 25 L 24	1000 960	54.5 40.5	6.19	**
READING AGE					
Social	H 19 L 30	190 300	55.3 46.3	1.92	
Intellectual	H 19 L 30	190 300	56.8 40.0	3.64	**
Achievement	H 19 L 30	190 300	57.4 32.0	5.54	**
Total Count	H 19 L 30	760 1200	56.7 41.9	6.38	**
EDUCATION AGE					
Social	H 19 L 30	190 300	54.7 46.7	1.74	
Intellectual	H 19 L 30	190 300	61.6 38.3	5.02	**
Achievement	H 19 L 30	190 300	58.9 31.0	6.01	**
Total Count	H 19 L 300	760 1200	58.0 41.4	2.28	*

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 3

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN ALL GRADES

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 27 L 24	270 240	59.3 46.3	2.93	**
Social	H 27 L 24	270 240	54.8 45.4	2.11	*
Intellectual	H 27 L 24	270 240	63.7 45.0	4.23	**
Achievement	H 27 L 24	270 240	67.0 49.2	4.08	**
Total Count	H 27 L 24	1080 960	61.2 46.5	6.67	**
PHYSICAL AGE					
Physical	H 25 L 26	250 260	47.6 56.9	-2.10	(*)
Social	H 25 L 26	250 260	48.8 51.9	- .705	
Total Count	H 25 L 26	1000 1040	49.7 58.9	-4.19	(**)
HEIGHT AGE					
Physical	H 29 L 22	290 220	52.8 54.1	- .298	
Social	H 29 L 22	290 220	48.3 53.2	-1.09	
Total Count	H 29 L 22	1160 880	52.2 57.0	-2.15	(*)
WEIGHT AGE					
Physical	H 22 L 29	220 290	50.0 53.8	- .860	
Social	H 22 L 29	220 290	50.9 47.6	.744	
Total Count	H 22 L 29	880 1160	56.7 52.5	1.88	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 3

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN ALL GRADES

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 26 L 25	260 250	57.3 46.0	2.25	*
Intellectual	H 26 L 25	260 250	71.9 36.8	7.96	**
Achievement	H 26 L 25	260 250	73.8 42.8	3.40	**
Total Count	H 26 L 25	1040 1000	65.4 42.8	3.24	**
READING AGE					
Social	H 26 L 25	260 250	55.3 46.3	1.59	
Intellectual	H 26 L 25	260 250	65.0 44.0	4.78	**
Achievement	H 26 L 25	260 250	71.5 45.2	6.04	**
Total Count	H 26 L 25	1040 1000	62.6 45.7	7.66	**
EDUCATION AGE					
Social	H 25 L 26	250 260	56.0 43.8	2.74	**
Intellectual	H 25 L 26	250 260	70.4 40.4	6.88	**
Achievement	H 25 L 26	250 260	73.4 44.6	6.54	**
Total Count	H 25 L 26	1000 1040	64.8 44.2	9.32	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

responses given by high and low children in this grade is warranted.

2. Fourth Grade Since 16 of the 26 hypotheses are rejected at or beyond the 0.05 percent level, the general conclusion that the greater percentages of positive self-image responses are given by high children in this grade is warranted.
3. Fifth Grade Since 17 out of the 26 hypotheses are rejected positively at or beyond the 0.05 percent level and only two rejected negatively, the general conclusion that the greater percentages of positive self-image responses are given by high children in this grade is warranted.
4. Sixth Grade Since 17 of the 26 hypotheses are rejected positively at or beyond the 0.05 percent level and only two rejected negatively, the general conclusion that the greater percentages of positive self-image responses are given by high children in this grade is warranted.
5. Seventh Grade Since 14 of the 26 hypotheses are rejected at or beyond the 0.05 percent level, only the tentative general conclusion that the greater percentages of positive self-image responses are given by high children is warranted.

General Conclusion Overall, the evidence is strongly suggestive that high status boys and girls give the

greater percentage of physical, intellectual, achievement, and total self-image responses. However, there is also a trend for low status boys and girls on physical, height, and weight ages to give the greater percentage of social self-image responses. Out of 35 tests for significance of differences of positive social self-image responses, 15 were in a negative direction.

D. Results with Grade and Sex Held Constant

In this analysis, all the self-image scores of the high status boys in each grade are contrasted against the self-image scores of all the low status boys in each grade to determine whether there are any significant differences in the percentages of their positive self-image responses. Complete statistical results with grade and sex held constant are noted in tables 9 through 18 on pages 55 to 74. The following general conclusions regarding positive self-image responses and growth status appear to be present:

1. Third grade boys Since only two of the 26 hypotheses are rejected positively at or beyond the 0.05 percent level and only three rejected negatively, the general conclusion that there is no difference between the percentages of positive self-image responses given by high and low boys in this grade is warranted.
2. Third grade girls Since none of the 26 hypotheses are rejected at or beyond the 0.05 percent level,

Table 4

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE THIRD GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 9 L 8	90 80	60.0 43.7	2.12	*
Social	H 9 L 8	90 80	42.2 58.7	-2.15	(*)
Intellectual	H 9 L 8	90 80	53.3 60.0	- .878	
Achievement	H 9 L 8	90 80	47.7 45.0	.360	
Total Count	H 9 L 8	360 320	50.8 51.8	- .272	
PHYSICAL AGE					
Physical	H 10 L 7	100 70	52.0 47.1	.625	
Social	H 10 L 7	100 70	52.0 47.1	.625	
Total Count	H 10 L 7	100 70	50.0 53.9	-1.01	
HEIGHT AGE					
Physical	H 9 L 8	90 80	55.5 48.8	.890	
Social	H 9 L 8	90 80	48.8 51.3	- .300	
Total Count	H 9 L 8	360 320	49.7 53.1	.890	
WEIGHT AGE					
Physical	H 6 L 11	60 110	53.3 47.3	.750	
Social	H 6 L 11	60 110	38.3 55.5	-2.13	(*)
Total Count	H 6 L 11	240 440	51.6 51.1	.130	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children

Table 4

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE THIRD GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 10 L 7	100 70	50.0 50.0	0.00	
Intellectual	H 10 L 7	100 70	59.0 52.8	.630	
Achievement	H 10 L 7	100 70	52.0 38.6	1.73	
Total Count	H 10 L 7	400 280	52.0 50.0	.570	
READING AGE					
Social	H 4 L 13	40 130	40.0 53.1	(1.45)	
Intellectual	H 4 L 13	40 130	52.5 57.7	(.587)	
Achievement	H 4 L 13	40 130	47.5 46.2	.149	
Total Count	H 4 L 13	160 520	50.6 51.5	(.202)	
EDUCATION AGE					
Social	H 6 L 11	60 110	45.0 52.7	(.964)	
Intellectual	H 6 L 11	60 110	66.7 50.9	1.98	*
Achievement	H 6 L 11	60 110	53.3 42.7	1.33	
Total Count	H 6 L 11	240 440	54.6 49.5	1.26	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 5

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE FOURTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 8 L 12	80 120	71.3 42.5	4.00	**
Social	H 8 L 12	80 120	62.5 50.0	1.74	
Intellectual	H 8 L 12	80 120	67.5 43.3	3.36	**
Achievement	H 8 L 12	80 120	68.8 38.3	4.22	**
Total Count	H 8 L 12	320 480	67.5 43.3	6.72	**
PHYSICAL AGE					
Physical	H 11 L 9	110 90	57.3 50.0	1.02	
Social	H 11 L 9	110 90	58.2 51.1	1.00	
Total Count	H 11 L 9	440 360	53.4 52.5	.258	
HEIGHT AGE					
Physical	H 13 L 7	130 70	58.5 45.7	1.73	
Social	H 13 L 7	130 70	56.2 52.9	.447	
Total Count	H 13 L 7	520 280	54.2 50.7	.300	
WEIGHT AGE					
Physical	H 9 L 11	90 110	67.8 42.7	3.54	**
Social	H 9 L 11	90 110	62.2 49.1	1.83	
Total Count	H 9 L 11	360 440	59.7 47.5	3.45	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 5

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE FOURTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 10 L 10	100 100	63.0 47.0	2.27	*
Intellectual	H 10 L 10	100 100	71.0 34.0	5.24	**
Achievement	H 10 L 10	100 100	67.0 34.0	4.67	**
Total Count	H 10 L 10	400 400	66.8 39.3	7.79	**
READING AGE					
Social	H 8 L 12	80 120	60.0 52.7	1.16	
Intellectual	H 8 L 12	80 120	68.8 41.7	3.76	**
Achievement	H 8 L 12	80 120	72.5 35.8	5.08	**
Total Count	H 8 L 12	320 480	66.6 44.0	6.27	**
EDUCATION AGE					
Social	H 7 L 13	70 130	62.9 50.8	1.64	
Intellectual	H 7 L 13	70 130	71.1 39.2	5.12	**
Achievement	H 7 L 13	70 130	78.6 35.4	5.83	**
Total Count	H 7 L 13	280 520	71.8 42.9	7.81	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 6

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE FIFTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 9	90	58.9	.819	
	L 10	100	53.0		
Social	H 9	90	54.4	2.55	*
	L 10	100	36.0		
Intellectual	H 9	90	66.7	5.43	**
	L 10	100	33.0		
Achievement	H 9	90	61.1	3.36	**
	L 10	100	37.0		
Total Count	H 9	360	60.3	5.64	**
	L 10	400	39.8		
PHYSICAL AGE					
Physical	H 9	90	56.7	.230	
	L 10	100	55.0		
Social	H 9	90	42.2	- .930	
	L 10	100	49.0		
Total Count	H 9	360	44.7	-2.48	(*)
	L 10	400	53.8		
HEIGHT AGE					
Physical	H 9	90	66.7	2.72	**
	L 10	100	47.0		
Social	H 9	90	36.7	-2.39	(*)
	L 10	100	54.0		
Total Count	H 9	360	45.8	-1.90	
	L 10	400	52.8		
WEIGHT AGE					
Physical	H 9	90	62.2	1.66	
	L 10	100	50.0		
Social	H 9	90	52.2	1.68	
	L 10	100	40.0		
Total Count	H 9	360	52.8	1.72	
	L 10	400	46.5		

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 6

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE FIFTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 9 L 10	90 100	52.2 40.0	1.69	
Intellectual	H 9 L 10	90 100	56.7 42.0	2.02	*
Achievement	H 9 L 10	90 100	62.2 36.0	3.61	**
Total Count	H 9 L 10	360 400	57.5 42.8	4.06	**
READING AGE					
Social	H 8 L 11	80 110	58.8 36.4	3.06	**
Intellectual	H 8 L 11	80 110	60.0 40.9	2.60	**
Achievement	H 8 L 11	80 110	66.3 35.5	4.20	**
Total Count	H 8 L 11	320 440	60.6 41.8	5.12	**
EDUCATION AGE					
Social	H 8 L 11	80 110	58.8 36.4	3.06	**
Intellectual	H 8 L 11	80 110	60.0 40.9	2.60	**
Achievement	H 8 L 11	80 110	66.3 35.5	4.20	**
Total Count	H 8 L 11	320 440	60.6 41.8	5.12	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 7

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE SIXTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 11 L 10	110 100	62.7 34.5	3.57	**
Social	H 11 L 10	110 100	51.8 63.0	.516	
Intellectual	H 11 L 10	110 100	53.6 39.0	2.01	*
Achievement	H 11 L 10	110 100	57.3 38.0	2.79	**
Total Count	H 11 L 10	440 400	56.3 44.5	3.42	**
PHYSICAL AGE					
Physical	H 9 L 12	90 120	58.8 45.0	1.99	*
Social	H 9 L 12	90 120	47.7 64.2	-2.37	(*)
Total Count	H 9 L 12	360 480	50.5 51.2	.200	
HEIGHT AGE					
Physical	H 13 L 8	130 80	61.5 33.7	3.98	**
Social	H 13 L 8	130 80	53.8 62.4	-1.23	
Total Count	H 13 L 8	520 320	56.3 42.1	3.98	**
WEIGHT AGE					
Physical	H 10 L 11	100 110	60.0 42.7	2.50	*
Social	H 10 L 11	100 110	52.0 56.4	.632	
Total Count	H 10 L 11	400 440	59.0 48.0	4.56	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 7

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE SIXTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 11 L 10	110 100	55.5 59.0	- .374	
Intellectual	H 11 L 10	110 100	59.1 33.0	3.78	**
Achievement	H 11 L 10	110 100	53.6 42.0	1.68	
Total Count	H 11 L 10	440 400	63.0 44.0	3.84	**
READING AGE					
Social	H 12 L 9	120 90	55.8 58.8	- .442	
Intellectual	H 12 L 9	120 90	62.5 25.5	5.31	**
Achievement	H 12 L 9	120 90	58.3 34.4	3.40	**
Total Count	H 12 L 9	480 360	59.7 39.1	5.91	**
EDUCATION AGE					
Social	H 11 L 10	110 100	52.7 59.0	- .283	
Intellectual	H 11 L 10	110 100	64.5 31.0	4.85	**
Achievement	H 11 L 10	110 100	59.0 36.0	3.34	**
Total Count	H 11 L 10	440 400	59.7 41.2	5.36	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 8

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE SEVENTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 11 L 12	110 120	54.5 50.0	.022	
Social	H 11 L 12	110 120	58.2 48.3	1.57	
Intellectual	H 11 L 12	110 120	63.6 37.5	3.96	**
Achievement	H 11 L 12	110 120	68.2 46.7	3.29	**
Total Count	H 11 L 12	440 480	59.0 43.1	4.84	**
PHYSICAL AGE					
Physical	H 11 L 12	110 120	53.6 50.8	.424	
Social	H 11 L 12	110 120	40.9 45.0	(.626)	
Total Count	H 11 L 12	440 480	49.3 49.1	.608	
HEIGHT AGE					
Physical	H 11 L 12	110 120	53.6 50.8	.424	
Social	H 11 L 12	110 120	40.9 45.0	(.626)	
Total Count	H 11 L 12	440 480	49.8 49.5	.608	
WEIGHT AGE					
Physical	H 11 L 12	110 120	53.6 50.8	.424	
Social	H 11 L 12	110 120	40.9 45.0	(. 626)	
Total Count	H 11 L 12	440 480	49.8 49.5	.608	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 8

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS AND GIRLS VS. LOW STATUS BOYS AND GIRLS IN THE SEVENTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 11 L 12	110 120	58.2 35.0	3.52	**
Intellectual	H 11 L 12	110 120	75.5 26.7	7.39	**
Achievement	H 11 L 12	110 120	70.9 38.3	4.99	**
Total Count	H 11 L 12	440 480	66.3 37.2	8.81	**
READING AGE					
Social	H 13 L 10	130 100	51.5 42.0	1.55	
Intellectual	H 13 L 10	130 100	60.0 37.0	3.46	**
Achievement	H 13 L 10	130 100	73.1 36.0	5.63	**
Total Count	H 13 L 10	520 400	59.0 39.5	5.87	**
EDUCATION AGE					
Social	H 12 L 11	120 110	56.7 28.2	4.36	**
Intellectual	H 12 L 11	120 110	66.7 32.8	5.28	**
Achievement	H 12 L 11	120 110	75.0 37.3	5.77	**
Total Count	H 12 L 11	480 440	62.5 37.5	7.58	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

the general conclusion that there is no difference between the percentages of positive self-image responses given by high and low girls in this grade is warranted.

3. Fourth grade boys Since 18 of the 26 hypotheses are rejected at or beyond the 0.05 percent level, the general conclusion that the greater percentages of positive self-image responses are given by the high boys in this grade is warranted.
4. Fourth grade girls Since 14 of the 26 hypotheses are positively rejected at or beyond the 0.05 percent level and only two rejected negatively, the general conclusion that the greater percentages of positive self-image responses are given by high girls in this grade is warranted.
5. Fifth grade boys Since 17 of the 26 hypotheses are rejected at or beyond the 0.05 percent level, the general conclusion that the greater percentages of positive self-image responses are given by high boys in this grade is warranted.
6. Fifth grade girls Since only 10 of the 26 hypotheses are positively rejected at or beyond the 0.05 percent level and only three rejected negatively, the tentative general conclusion that there are no differences between the percentages of positive self-image responses given by high and low girls in this grade is warranted.

7. Sixth grade boys Since only 10 of the 26 hypotheses are positively rejected at or beyond the 0.05 percent level, the general conclusion that the greater percentages of positive self-image responses are given by high boys in this grade is warranted.
8. Sixth grade girls Since only 10 of the 26 hypotheses are positively rejected at or beyond the 0.05 percent level and only three rejected negatively, the tentative general conclusion that there is no difference between percentages of positive self-image responses given by high and low girls is warranted.
9. Seventh grade boys Since 16 of the 26 hypotheses are rejected at or beyond the 0.05 percent level, the general conclusion that the greater percentages of positive self-image responses are given by high boys in this grade is warranted.
10. Seventh grade girls Since 14 of the 26 hypotheses are rejected at or beyond the 0.05 percent level or less, the general conclusion that the greater percentages of positive self-image responses are given by high girls in this grade is warranted.

General Conclusion The findings when grade and sex are held constant are consistent with the conclusions previously noted. Boys and girls high in organismic, mental, reading, and education ages give the greater percentage of intellectual, achievement, and total self-image responses. Boys high in

organismic, physical, height, and weight ages tend to give the greater percentage of physical and total self-image responses. This conclusion is not confirmed for girls. Contrary to expectations, there is a strong trend for girls low in physical and height ages to give the greater percentage of physical, social, and total self-image responses.

The next section will present a summary and discussion of the results along with a statement of the conclusions and educational implications.

Table 9

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE THIRD GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 4 L 5	40 50	65.0 42.0	2.17	*
Social	H 4 L 5	40 50	30.0 58.0	-2.64	(**)
Intellectual	H 4 L 5	40 50	55.0 52.0	.30	
Achievement	H 4 L 5	40 50	45.0 36.0	.247	
Total Count	H 4 L 5	160 200	48.0 47.0	.324	
PHYSICAL AGE					
Physical	H 5 L 4	50 40	54.0 50.0	.379	
Social	H 5 L 4	50 40	48.0 42.5	.520	
Total Count	H 5 L 4	200 160	60.0 50.0	.755	
HEIGHT AGE					
Physical	H 4 L 5	40 50	55.0 50.0	.472	
Social	H 4 L 5	40 50	45.0 46.0	- .089	
Total Count	H 4 L 5	160 200	46.3 49.0	- .055	
WEIGHT AGE					
Physical	H 4 L 5	40 50	65.0 42.0	1.96	*
Social	H 4 L 5	40 50	30.0 58.0	-2.44	(**)
Total Count	H 4 L 5	160 200	48.8 47.0	.330	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 9

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE THIRD GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 4	50 40	42.0 50.0	- .755	
Intellectual	H 5 L 4	50 40	54.0 52.5	.141	
Achievement	H 5 L 4	50 40	44.4 35.0	1.55	
Total Count	H 5 L 4	200 160	48.0 47.5	.089	
READING AGE					
Social	H 2 L 7	20 70	20.0 52.9	-2.60	(**)
Intellectual	H 2 L 7	20 70	55.0 52.9	.045	
Achievement	H 2 L 7	20 70	35.0 41.4	- .518	
Total Count	H 2 L 7	80 280	42.5 49.3	-1.07	
EDUCATION AGE					
Social	H 3 L 6	30 60	30.0 53.0	-1.86	
Intellectual	H 3 L 6	30 60	66.6 46.7	1.79	
Achievement	H 3 L 6	30 60	40.0 40.0	0.00	
Total Count	H 3 L 6	120 240	48.3 47.5	.814	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 10

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE THIRD GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 5 L 3	50 30	56.0 46.7	.809	
Social	H 5 L 3	50 30	52.0 60.0	- .712	
Intellectual	H 5 L 3	50 30	52.0 73.3	-1.88	
Achievement	H 5 L 3	50 30	50.0 60.0	- .868	
Total Count	H 5 L 3	200 120	52.5 60.0	-1.03	
PHYSICAL AGE					
Physical	H 5 L 3	50 30	50.0 43.3	.515	
Social	H 5 L 3	50 30	56.0 53.3	.230	
Total Count	H 5 L 3	200 120	52.0 57.5	- .956	
HEIGHT AGE					
Physical	H 5 L 3	50 30	56.0 46.7	.809	
Social	H 5 L 3	50 30	52.0 60.0	- .700	
Total Count	H 5 L 3	200 120	52.5 60.0	- 1.30	
WEIGHT AGE					
Physical	H 2 L 6	20 60	30.0 51.7	-1.42	
Social	H 2 L 6	20 60	55.0 53.3	.134	
Total Count	H 2 L 6	80 240	57.5 52.5	.777	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 10

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE THIRD GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 3	50 30	58.0 50.0	.696	
Intellectual	H 5 L 3	50 30	64.0 53.3	.943	
Achievement	H 5 L 3	50 30	60.0 43.3	1.43	
Total Count	H 5 L 3	200 120	56.5 53.3	.552	
READING AGE					
Social	H 2 L 6	20 60	52.9 53.0	- .519	
Intellectual	H 2 L 6	20 60	50.0 63.3	-1.05	
Achievement	H 2 L 6	20 60	52.9 51.6	.647	
Total Count	H 2 L 6	80 240	58.9 54.2	.223	
EDUCATION AGE					
Social	H 3 L 5	30 50	60.0 52.0	.696	
Intellectual	H 3 L 5	30 50	66.6 56.0	.943	
Achievement	H 3 L 5	30 50	66.6 46.0	1.79	
Total Count	H 3 L 5	120 200	60.8 52.0	1.53	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 11

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE FOURTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 3 L 6	30 60	73.3 50.0	2.11	*
Social	H 3 L 6	30 60	56.7 53.3	.089	
Intellectual	H 3 L 6	30 60	53.3 40.0	1.20	
Achievement	H 3 L 6	30 60	46.6 28.3	1.73	
Total Count	H 3 L 6	120 240	57.7 42.9	2.60	**
PHYSICAL AGE					
Physcial	H 5 L 4	50 40	74.1 37.5	3.27	**
Social	H 5 L 4	50 40	64.0 42.5	2.03	*
Total Count	H 5 L 4	200 160	56.0 37.5	3.49	**
HEIGHT AGE					
Physical	H 5 L 4	50 40	72.0 40.0	2.83	**
Social	H 5 L 4	50 40	60.0 47.5	1.01	
Total Count	H 5 L 4	200 160	55.5 37.5	3.28	**
WEIGHT AGE					
Physical	H 4 L 5	40 50	80.0 40.0	3.29	**
Social	H 4 L 5	40 50	65.0 46.0	1.79	
Total Count	H 4 L 5	40 50	56.9 40.5	3.09	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 11

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE FOURTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 4	50 40	62.0 45.0	1.60	
Intellectual	H 5 L 4	50 40	62.0 22.5	3.53	**
Achievement	H 5 L 4	50 40	50.0 15.0	3.25	**
Total Count	H 5 L 4	200 160	59.5 33.1	4.98	**
READING AGE					
Social	H 2 L 7	20 70	60.0 52.8	.566	
Intellectual	H 2 L 7	20 70	70.0 37.1	2.35	*
Achievement	H 2 L 7	20 70	65.0 25.7	2.99	**
Total Count	H 2 L 7	80 280	66.0 42.5	3.75	**
EDUCATION AGE					
Social	H 2 L 7	20 70	60.0 52.8	.566	
Intellectual	H 2 L 7	20 70	70.0 37.1	2.35	**
Achievement	H 2 L 7	20 70	65.0 25.7	2.99	**
Total Count	H 2 L 7	80 280	66.0 42.5	3.75	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 12

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE FOURTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 5 L 6	50 60	70.0 35.0	3.46	**
Social	H 5 L 6	50 60	66.0 46.6	2.03	*
Intellectual	H 5 L 6	50 60	76.0 46.6	2.93	**
Achievement	H 5 L 6	50 60	82.0 48.3	3.44	**
Total Count	H 5 L 6	200 240	73.5 43.7	6.28	**
PHYSICAL AGE					
Physical	H 6 L 5	60 50	43.3 60.0	-1.68	
Social	H 6 L 5	60 50	53.3 58.0	- .490	
Total Count	H 6 L 5	240 200	51.2 64.5	- .279	
HEIGHT AGE					
Physical	H 8 L 3	80 30	50.0 40.0	.311	
Social	H 8 L 3	80 30	53.7 60.0	- .587	
Total Count	H 8 L 3	320 120	53.4 67.5	-2.65	(**)
WEIGHT AGE					
Physical	H 5 L 6	50 60	58.0 45.0	1.35	
Social	H 5 L 6	50 60	60.0 51.6	.876	
Total Count	H 5 L 6	200 240	62.0 53.3	1.83	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 12

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE FOURTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 6	50 60	64.0 48.3	1.64	
Intellectual	H 5 L 6	50 60	80.0 41.6	3.91	**
Achievement	H 5 L 6	50 60	84.0 46.6	3.88	**
Total Count	H 5 L 6	200 240	74.0 43.3	6.47	**
READING AGE					
Social	H 6 L 5	60 50	60.0 50.0	1.04	
Intellectual	H 6 L 5	60 50	68.3 48.0	1.96	*
Achievement	H 6 L 5	60 50	75.0 50.0	4.03	**
Total Count	H 6 L 5	240 200	66.6 46.0	4.35	**
EDUCATION AGE					
Social	H 5 L 6	50 60	64.0 48.3	1.64	
Intellectual	H 5 L 6	50 60	80.0 41.6	3.91	**
Achievement	H 5 L 6	50 60	84.1 46.6	3.88	**
Total Count	H 5 L 6	200 240	74.0 43.3	6.47	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 13

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE FIFTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 4 L 6	40 60	45.0 35.0	.495	
Social	H 4 L 6	40 60	50.0 35.0	1.49	
Intellectual	H 4 L 6	40 60	50.0 30.0	2.02	*
Achievement	H 4 L 6	40 60	42.5 25.0	1.84	
Total Count	H 4 L 6	160 240	50.6 36.3	2.94	**
PHYSICAL AGE					
Physical	H 5 L 5	50 50	64.0 50.0	1.41	
Social	H 5 L 5	50 50	38.0 48.0	-1.01	
Total Count	H 5 L 5	200 200	43.0 42.0	.202	
HEIGHT AGE					
Physical	H 5 L 5	50 50	80.0 34.0	4.43	**
Social	H 5 L 5	50 50	42.0 48.0	- .603	
Total Count	H 5 L 5	200 200	48.0 38.0	2.01	*
WEIGHT AGE					
Physical	H 4 L 6	40 60	77.5 43.3	3.17	**
Social	H 4 L 6	40 60	52.5 36.6	1.56	
Total Count	H 4 L 6	160 240	53.8 35.0	3.71	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 13

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE FIFTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 5	50 50	54.0 32.0	2.22	*
Intellectual	H 5 L 5	50 50	40.0 36.0	.412	
Achievement	H 5 L 5	50 50	50.0 14.0	3.86	**
Total Count	H 5 L 5	200 200	50.5 34.5	3.28	**
READING AGE					
Social	H 4 L 6	40 60	62.5 30.0	3.01	**
Intellectual	H 4 L 6	40 60	42.5 35.0	2.39	*
Achievement	H 4 L 6	40 60	57.5 15.0	4.41	**
Total Count	H 4 L 6	160 240	54.4 33.8	4.09	**
EDUCATION AGE					
Social	H 4 L 6	40 60	62.5 30.0	3.01	**
Intellectual	H 4 L 6	40 60	42.5 35.0	2.39	*
Achievement	H 4 L 6	40 60	57.5 15.0	4.41	**
Total Count	H 4 L 6	160 240	54.4 33.8	4.09	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 14

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE FIFTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 5	50	58.0	.757	
	L 4	40	50.0		
Social	H 5	50	58.0	1.94	
	L 4	40	37.5		
Intellectual	H 5	50	80.0	3.89	**
	L 4	40	37.5		
Achievement	H 5	50	76.0	2.10	*
	L 4	40	55.0		
Total Count	H 5	200	68.0	4.39	**
	L 4	160	45.0		
PHYSICAL AGE					
Physical	H 4	40	47.5	-1.18	
	L 5	50	60.0		
Social	H 4	40	47.5	- .746	
	L 5	50	50.0		
Total Count	H 4	160	48.1	-3.31	(**)
	L 5	200	65.0		
HEIGHT AGE					
Physical	H 4	40	50.0	- .949	
	L 5	50	60.0		
Social	H 4	40	35.0	-2.35	(*)
	L 5	50	60.0		
Total Count	H 4	160	45.6	-4.17	(**)
	L 5	200	68.6		
WEIGHT AGE					
Physical	H 5	50	50.0	- .947	
	L 4	40	60.0		
Social	H 5	50	52.0	.660	
	L 4	40	45.0		
Total Count	H 5	200	53.4	-2.19	(*)
	L 4	160	63.7		

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 14

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE FIFTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 4	40	50.0		
	L 5	50	48.0	.190	
Intellectual	H 4	40	77.5		
	L 5	50	48.0	2.85	**
Achievement	H 4	40	77.5		
	L 5	50	48.0	2.85	**
Total Count	H 4	160	66.2		
	L 5	200	48.5	3.39	**
READING AGE					
Social	H 4	40	55.0		
	L 5	50	44.0	1.03	
Intellectual	H 4	40	77.5		
	L 5	50	48.0	2.63	**
Achievement	H 4	40	75.0		
	L 5	50	60.0	1.15	
Total Count	H 4	160	66.8		
	L 5	200	50.5	3.12	**
EDUCATION AGE					
Social	H 4	40	55.0		
	L 5	50	44.0	1.03	
Intellectual	H 4	40	77.5		
	L 5	50	48.0	2.63	**
Achievement	H 4	40	75.0		
	L 5	50	60.0	1.15	
Total Count	H 4	160	66.8		
	L 5	200	50.5	3.12	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 15

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE SIXTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 5 L 6	50 60	62.0 33.3	2.81	**
Social	H 5 L 6	50 60	44.0 61.6	-1.84	
Intellectual	H 5 L 6	50 60	46.0 28.3	1.91	
Achievement	H 5 L 6	50 60	54.0 28.3	2.73	**
Total Count	H 5 L 6	200 240	51.5 37.9	3.64	**
PHYSICAL AGE					
Physical	H 5 L 6	50 60	62.0 33.3	2.81	**
Social	H 5 L 6	50 60	44.0 61.6	-1.84	
Total Count	H 5 L 6	200 240	51.5 37.9	3.64	**
HEIGHT AGE					
Physical	H 7 L 4	70 40	60.0 22.5	3.59	**
Social	H 7 L 4	70 40	50.0 60.0	-1.01	
Total Count	H 7 L 4	280 160	52.1 30.0	4.50	**
WEIGHT AGE					
Physical	H 6 L 5	60 50	61.6 28.0	3.33	**
Social	H 6 L 5	60 50	48.3 60.0	-1.22	
Total Count	H 6 L 5	240 200	51.2 35.5	3.30	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 15

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE SIXTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 6	50 60	50.0 56.6	- .700	
Intellectual	H 5 L 6	50 60	42.0 31.6	1.12	
Achievement	H 5 L 6	50 60	32.0 46.6	-1.56	
Total Count	H 5 L 6	200 240	44.5 43.7	.158	
READING AGE					
Social	H 6 L 5	60 50	44.0 61.6	- .454	
Intellectual	H 6 L 5	60 50	46.0 28.3	3.44	**
Achievement	H 6 L 5	60 50	54.0 40.0	1.17	
Total Count	H 6 L 5	240 200	51.5 37.9	3.50	**
EDUCATION AGE					
Social	H 5 L 6	50 60	48.0 58.3	-1.01	
Intellectual	H 5 L 6	50 60	56.0 26.6	2.93	**
Achievement	H 5 L 6	50 60	50.0 31.6	1.97	*
Total Count	H 5 L 6	200 240	54.0 37.5	3.46	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 16

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE SIXTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 6 L 4	60 40	63.3 45.0	1.80	
Social	H 6 L 4	60 40	58.3 65.0	- .670	
Intellectual	H 6 L 4	60 40	60.0 55.0	.524	
Achievement	H 6 L 4	60 40	60.0 52.5	.742	
Total Count	H 6 L 4	240 160	60.4 54.4	1.20	
PHYSICAL AGE					
Physical	H 4 L 6	40 60	55.0 56.6	- .016	
Social	H 4 L 6	40 60	52.5 66.6	-1.41	
Total Count	H 4 L 6	160 240	49.4 64.5	-3.02	(**)
HEIGHT AGE					
Physical	H 6 L 4	60 40	63.3 45.0	1.80	
Social	H 6 L 4	60 40	58.3 65.0	- .670	
Total Count	H 6 L 4	240 160	60.4 54.4	1.20	
WEIGHT AGE					
Physical	H 4 L 6	40 60	57.5 55.5	.246	
Social	H 4 L 6	40 60	57.5 53.3	.410	
Total Count	H 4 L 6	160 240	70.6 50.4	4.01	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 16

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE SIXTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 6 L 4	60 40	60.0 62.5	- .251	
Intellectual	H 6 L 4	60 40	73.3 35.0	3.59	**
Achievement	H 6 L 4	60 40	73.3 35.8	3.42	**
Total Count	H 6 L 4	240 160	67.9 44.4	4.67	**
READING AGE					
Social	H 6 L 4	60 40	60.0 62.5	- .251	
Intellectual	H 6 L 4	60 40	73.3 35.0	3.59	**
Achievement	H 6 L 4	60 40	73.3 35.8	3.42	**
Total Count	H 6 L 4	240 160	67.9 44.4	4.67	**
EDUCATION AGE					
Social	H 6 L 4	60 40	56.6 60.0	- .104	
Intellectual	H 6 L 4	60 40	71.6 37.5	3.17	**
Achievement	H 6 L 4	60 40	66.6 42.5	2.18	*
Total Count	H 6 L 4	240 160	64.5 46.3	3.63	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 17

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE SEVENTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 5 L 5	50 50	60.0 44.0	1.60	
Social	H 5 L 5	50 50	56.0 48.0	.80	
Intellectual	H 5 L 5	50 50	76.0 48.0	2.68	**
Achievement	H 5 L 5	50 50	68.0 56.0	1.23	
Total Count	H 5 L 5	200 200	65.0 49.0	3.13	**
PHYSICAL AGE					
Physical	H 5 L 5	50 50	64.0 40.0	2.20	*
Social	H 5 L 5	50 50	46.0 58.0	- .649	
Total Count	H 5 L 5	200 200	58.5 55.5	.606	
HEIGHT AGE					
Physical	H 5 L 5	50 50	64.0 40.0	2.20	*
Social	H 5 L 5	50 50	46.0 58.0	- .649	
Total Count	H 5 L 5	200 200	58.5 55.5	.606	
WEIGHT AGE					
Physical	H 6 L 4	60 40	63.3 35.5	2.20	*
Social	H 6 L 4	60 40	51.6 52.5	- .817	
Total Count	H 6 L 4	240 160	61.2 50.0	2.00	*

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 17

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS BOYS VS. LOW STATUS BOYS IN THE SEVENTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 5 L 5	50 50	64.0 40.0	2.20	*
Intellectual	H 5 L 5	50 50	86.0 38.0	4.74	**
Achievement	H 5 L 5	50 50	64.0 46.0	1.80	
Total Count	H 5 L 5	200 200	67.5 43.0	4.92	**
READING AGE					
Social	H 5 L 5	50 50	66.0 38.0	2.60	**
Intellectual	H 5 L 5	50 50	70.0 54.0	1.66	
Achievement	H 5 L 5	50 50	78.0 46.0	3.09	**
Total Count	H 5 L 5	200 200	66.5 47.5	4.18	**
EDUCATION AGE					
Social	H 5 L 5	50 50	68.0 36.0	3.00	**
Intellectual	H 5 L 5	50 50	76.0 48.0	2.68	**
Achievement	H 5 L 5	50 50	78.0 46.0	3.00	**
Total Count	H 5 L 5	200 200	67.5 46.5	4.23	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 18

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE SEVENTH GRADE

Growth Age and Self-Image Measures	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
ORGANISMIC AGE					
Physical	H 6 L 7	60 70	50.0 34.2	.488	
Social	H 6 L 7	60 70	41.6 31.4	1.24	
Intellectual	H 6 L 7	60 70	53.3 30.0	2.52	*
Achievement	H 6 L 7	60 70	68.3 40.0	3.05	**
Total Count	H 6 L 7	240 280	53.3 38.9	3.19	**
PHYSICAL AGE					
Physical	H 6 L 7	60 70	45.0 58.5	-1.55	
Social	H 6 L 7	60 70	46.6 35.7	1.13	
Total Count	H 6 L 7	240 280	45.8 45.3	.101	
HEIGHT AGE					
Physical	H 6 L 7	60 70	45.0 58.5	-1.55	
Social	H 6 L 7	60 70	46.6 35.7	1.13	
Total Count	H 6 L 7	240 280	45.8 45.3	.101	
WEIGHT AGE					
Physical	H 6 L 7	60 70	45.0 58.5	-1.55	
Social	H 6 L 7	60 70	46.6 35.7	1.13	
Total Count	H 6 L 7	240 280	45.8 45.3	.101	

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

Table 18

RESULTS OF TESTS FOR PERCENTAGE DIFFERENCES OF SELF-IMAGE RESPONSES FOR HIGH STATUS GIRLS VS. LOW STATUS GIRLS IN THE SEVENTH GRADE

Growth Age and Self-Image Measure	Number of High and Low Cases	Number of Responses	Percentage of Pluses	Z Score	Significant Rejections of Null Hypothesis
MENTAL AGE					
Social	H 6 L 7	60 70	53.3 31.4	2.34	*
Intellectual	H 6 L 7	60 70	66.6 18.5	5.38	**
Achievement	H 6 L 7	60 70	76.6 32.8	4.81	**
Total Count	H 6 L 7	240 280	62.5 33.2	6.67	**
READING AGE					
Social	H 8 L 5	80 50	42.5 26.0	1.91	
Intellectual	H 8 L 5	80 50	53.7 20.0	3.63	**
Achievement	H 8 L 5	80 50	70.0 26.0	4.71	**
Total Count	H 8 L 5	320 200	54.3 31.5	5.00	**
EDUCATION AGE					
Social	H 7 L 6	70 60	48.5 21.6	2.99	**
Intellectual	H 7 L 6	70 60	60.0 18.3	4.64	**
Achievement	H 7 L 6	70 60	72.8 30.0	4.67	**
Total Count	H 7 L 6	280 240	58.9 30.0	6.60	**

** Significant at 0.01 percent level

* Significant at 0.05 percent level

() Significant rejection in reverse, i.e., greater percentage of significant positive responses were given by low status children.

CHAPTER IV

SUMMARY AND CONCLUSIONS

The problem of this study evolved from a desire to explore the relationships that exists between certain measurable aspects of a child's growth status and this self-image with regard to his physical attributes, his social skills, his intellectual competence, and his achievement abilities. The various notions of personality theory and their related discussions regarding "self" development generally agree that the child's self-image perceptions are shaped on the basis of his interactions with, and responses from the external world. Whole child or developmental theory takes this idea a step further. As suggested by Olson (58), ".... all types of growth (physical, mental, emotional, and social) occur in some type of functional interdependency." (p.94) As noted earlier, there is the explicit proposition in whole child theory which fosters the notion that each child demonstrates his own inherent design for growth. Implicit in this theory is the idea that this inherent design for growth is one of the most important influences determining the kinds of responses, cues, appraisals, and acknowledgements the child receives from the external world.

For purposes of clarification, the specific problem of the study can be divided into two parts. First, it proposed to examine the relationships between the growth

status of the "whole" child, (as estimated from his organismic age), and his self-perceptions in four defined areas of the self. Secondly, it sought to examine the relationships between the status of certain divisions of the child's total growth, (physical growth, height growth, weight growth, mental growth, reading growth, education growth), and his self-perceptions relevant to those areas of growth.

A. Summary of the Results

Tables 1 through 18 in chapter three are condensed and summarized in tables 19 through 23 on pages 77 to 81 of this chapter. These tables specify the confidence levels indicating instances where high status children or low status children give the greater percentage of positive self-image responses on the various growth measures.

In order to facilitate easy reference for the reader, each of the null hypotheses will be re-stated here and followed by a summarization of the results. Since a detailed listing of the results occurred in the previous chapter, the focus here is on the general trend of evidence along with a broader summarization. The reader is reminded that when nothing is held constant, sex is held constant, grade is held constant, and finally grade and sex are held constant in this order, that each hypothesis is tested 18 different times. In the summaries to follow, this figure will sometimes be used to comparatively examine how often any one hypothesis has been rejected.

TABLE 19. SUMMARIZATION OF CONFIDENCE LEVELS FOR COMPARISONS OF PERCENTAGES OF POSITIVE PHYSICAL SELF-IMAGE RESPONSES OF HIGH GROWTH AGE STATUS AND LOW GROWTH AGE STATUS CHILDREN WITH CERTAIN VARIABLES HELD CONSTANT

Growth[1] Measures	GRADE AND SEX HELD CONSTANT										SEX HELD CONSTANT	
	Grades											
	Three		Four		Five		Six		Seven		Boys	Girls
	B	G	B	G	B	G	B	G	B	G		
O.A.	*	.40	*	**	.60	.40	**	.06	.10	.60	**	**
P.A.	.70	.60	**	(.80)	.16	(.20)	**	(.90)	*	(.12)	**	**
H.A.	.60	.40	**	.70	**	(.30)	**	.06	*	(.12)	**	(.70)
W. A.	*	(.16)	**	.16	**	(.30)	**	.80	**	(.12)	**	(.30)

	GRADE HELD CONSTANT					NOTHING HELD CONSTANT
	Grades					
	Three	Four	Five	Six	Seven	
O.A.	*	**	.40	**	.90	**
P.A.	.50	.30	.80	*	.60	.20
H.A.	.30	.08	**	**	.60	**
W.A.	.40	**	.08	*	.60	**

** Significant at the 0.01 percent level
* Significant at the 0.05 percent level
() Indicates instances where results are in a reverse direction, i.e., low status children gave more positive self-image responses.
1. Organismic age (O.A.), Physical age (P.A.), Height age (H.A.), Weight age (W.A.), Mental age (M.A.), Reading age (R.A.), Education age (E.A.). All of the symbols and abbreviations explained above will be used on the four tables to follow.

Table 20. SUMMARIZATION OF CONFIDENCE LEVELS FOR COMPARISONS OF PERCENTAGES OF POSITIVE SOCIAL SELF-IMAGE RESPONSES OF HIGH GROWTH AGE STATUS AND LOW GROWTH AGE STATUS CHILDREN WITH CERTAIN VARIABLES HELD CONTANT

Growth Measures	GRADE AND SEX HELD CONSTANT										SEX HELD CONSTANT	
	Grades											
	Three		Four		Five		Six		Seven			
	B	G	B	G	B	G	B	G	B	G	Boys	Girls
O.A.	(**)	.40	.90	*	.80	.06	.06	(.50)	.40	.20	(.30)	*
P.A.	.60	.80	*	(.60)	(.30)	(.40)	.06	(.16)	(.50)	.20	(.40)	.40
H.A.	(.90)	(.40)	.30	(.50	(.50)	(*)	.30	(.50)	(.50)	.20	(.70)	(.10)
W.A.	(.05)	.80	.06	.30	.12	.50	.20	.60	(.40)	.20	(.90)	.40
M.A.	.40	.40	.10	.10	*	.80	(.40)	(.80)	*	*	*	*
R.A.	(*)	(.60)	.50	.30	*	.30	.60	(.80)	**	.06	.06	.10
E.A.	(.06)	.40	.50	.10	**	.30	.30	(.90)	**	**	.08	**

	GRADE HELD CONSTANT					NOTHING HELD CONSTANT
	Grades					
	Three	Four	Five	Six	Seven	
O.A.	(*)	.08	*	.60	.10	.30
P.A.	.50	1.00	.30	(*)	(.50)	(.20)
H.A.	(.70)	.60	(*)	(.20)	(.50)	(.14)
W.A.	(*)	.06	.08	(.50)	(.50)	.90
M.A.	1.00	*	.08	(.70)	**	**
R.A.	(.14)	.20	.01	(.60)	.12	*
E.A.	(.30)	.10	**	(.70)	.01	**

Table 21. SUMMARIZATION OF CONFIDENCE LEVELS FOR COMPARISONS OF PERCENTAGES OF POSITIVE INTELLECTUAL SELF-IMAGE RESPONSES OF HIGH GROWTH AGE STATUS AND LOW GROWTH AGE STATUS CHILDREN WITH CERTAIN VARIABLES HELD CONSTANT

Growth Measures	GRADE AND SEX HELD CONSTANT Grades Three B	Three G	Four B	Four G	Five B	Five G	Six B	Six G	Seven B	Seven G	SEX HELD CONSTANT Boys	SEX HELD CONSTANT Girls
O.A.	.70	.06	.90	**	*	**	.06	.60	**	*	**	**
M.A.	.80	.80	**	**	.60	**	.20	**	**	**	**	**
R.A.	.90	(.90)	*	*	*	**	**	**	.08	**	**	**
E.A.	.06	.30	*	**	*	**	**	**	**	**	**	**

Growth Measures	GRADE HELD CONSTANT Grades Three	Four	Five	Six	Seven	NOTHING HELD CONSTANT
O.A.	(.40)	**	**	*	**	*
M.A.	.40	**	*	**	**	*
R.A.	(.50)	**	**	**	**	*
E.A.	*	**	**	**	**	*

Table 22. SUMMARIZATION OF CONFIDENCE LEVELS FOR COMPARISONS OF PERCENTAGES OF POSITIVE ACHIEVEMENT SELF-IMAGE RESPONSES OF HIGH GROWTH AGE STATUS AND LOW GROWTH AGE STATUS CHILDREN WITH CERTAIN VARIABLES HELD CONSTANT

Growth Measures	GRADE AND SEX HELD CONSTANT Grades										SEX HELD CONSTANT	
	Three		Four		Five		Six		Seven			
	B	G	B	G	B	G	B	G	B	G	Boys	Girls
O. A.	.70	.30	.08	**	*	**	.06	.60	**	*	**	**
M. A.	.12	.12	**	**	**	**	.14	**	.06	**	**	**
R. A.	(.60)	.50	**	**	**	.12	.20	**	**	**	**	**
E. A.	1.00	.06	**	**	**	.12	*	*	**	**	**	**

	GRADE HELD CONSTANT Grades					NOTHING HELD CONSTANT
	Three	Four	Five	Six	Seven	
O. A.	.70	**	**	**	**	**
M. A.	.08	**	**	.10	**	**
R. A.	.80	**	**	**	**	**
E. A.	.18	**	**	**	**	**

Table 23. SUMMARIZATION OF CONFIDENCE LEFELS FOR COMPARISONS OF PERCENTAGES OF POSITIVE TOTAL SELF-IMAGE RESPONSES OF HIGH GROWTH AGE STATUS AND LOW GROWTH AGE STATUS CHILDREN WITH CERTAIN VARIABLES HELD CONSTANT

Growth Measures	GRADE AND SEX HELD CONSTANT Grades Three B	Three G	Four B	Four G	Five B	Five G	Six B	Six G	Seven B	Seven G	SEX HELD CONSTANT Boys	SEX HELD CONSTANT Girls
O.A.	.70	.90	**	**	**	**	**	.20	**	**	**	**
P.A.	.40	.30	**	(**)	.80	(**)	**	(**)	.50	.90	**	(**)
H.A.	.90	.18	**	(**)	*	(**)	**	.20	.50	.90	**	(*)
W.A.	.70	.40	**	.06	**	(*)	**	**	*	.90	**	.06
M.A.	.90	.90	**	**	**	*	.80	**	**	**	**	**
R.A.	(.10)	.80	**	**	**	**	**	**	**	**	**	**
E.A.	.40	.12	**	**	**	**	**	**	**	**	**	**

Growth Measures	GRADE HELD CONSTANT Grades Three	Four	Five	Six	Seven	NOTHING HELD CONSTANT
O.A.	(.70)	**	**	**	**	**
P.A.	(.30)	.70	(.*)	(.80)	.50	(.40)
H.A.	.30	.70	*	**	.50	.14
W.A.	.80	**	.08	**	.50	**
M.A.	.50	**	**	**	**	**
R.A.	(.80)	**	**	**	**	**
E.A.	.20	**	**	**	**	**

1. There are no significant differences in the percentages of positive physical self-image responses between high and low status children for:

a. organismic age.
b. physical age.
c. height age.
d. weight age.

Since hypothesis 1-a was positively rejected 10 out of 18 times at or beyond the 0.05 percent level of confidence, it is concluded that there seems to be a relationship between the growth of the "whole" child and a positive physical self-image. Children high on organismic age gave significantly more positive physical self-image responses than children low on organismic age.

As indicated in table 19 on page 77, there is an inclination for the data on boys to reject hypotheses 1-b, 1-c, and 1-d. The general conclusion appears to be that boys high on physical, height, and weight ages give a significantly greater percentage of positive physical self-image responses than boys low on those measures. (Contrary to expectations, there is a pronounced tendency for girls low on physical, height, and weight ages to give a significantly greater percentage of positive physical self-image responses.)

2. There are no significant differences in the percentages of positive social self-image responses between high and low status children for:

a. organismic age.
b. physical age.
c. height age.
d. weight age.
e. mental age.
f. reading age.
g. education age.

None of the hypotheses under discussion can consisently be rejected either positively or negatively. Although with sex held constant and the nothing held constant, the evidence leans toward rejecting hypotheses 2-e, 2-f, and 2-g, there is little consistency in the results as further variables are held constant. As an examination of table 20 on page 78 demonstrates, the general conclusion is that all of the hypothese listed above must be accepted. (Contrary to expectations, there is a trend for girls low on physical and height ages to give the greater percentage of positive social self-image responses. This same trend was noted for physical self-image responses. There also seems to be a trend for boys low on height age to give the greater percentage of positive social self-image responses.)

3. There are no significant differences in the percentages of positive intellectual self-image responses between high and low status children for:

a. organismic age.
b. mental age.
c. reading age.
d. education age.

As demonstrated in table 21 on page 79, each of the four hypotheses listed above can be positively rejected with

considerable consistency and confidence. There not only appears to be a relationship between the growth status of the "whole" child and a positive intellectual self-image, but also between those parts of academic growth which are related to intellectual functioning. The general conclusion seems to be that children high on organismic, mental, reading, and education ages give a significantly greater percentage of positive intellectual self-image responses than children low on those growth measures.

4. There are no significant differences in the percentages of positive achievement self-image responses between high and low status children for:

a. organismic age.
b. mental age.
c. reading age.
d. education age.

As demonstrated in table 22 on page 80, each of the four hypotheses listed above can be positively rejected with considerable consistency and confidence. There not only seems to be a relationship between the growth status of the "whole" child and a positive achievement self-image, but also between those parts of academic growth which are related to achievement performance. The general conclusion seems to be that children high on organismic, mental, reading, and education ages give a significantly greater percentage of positive achievement self-image responses than children low on those growth measures.

5. There are no significant differences in the percentages of positive total self-image responses between high and low status children for:

a. organismic age.
b. physical age.
c. height age.
d. weight age.
e. mental age.
f. reading age.
g. education age.

As indicated in table 23 on page 81, hypotheses 5-a, 5-e, 5-f, and 5-g can be positively rejected with considerable consistency and confidence. There appears to be a rather significant relationship between the growth status of the "whole" child and a positive "total" self-image.

The data on boys rejects hypothesis 5-d, but the data for the girls are too inconsistent to allow for a conclusive rejection of that hypothesis for both sexes. Although the evidence is inconclusive, there are suggestive trends which support previously noted findings that data for the girls are in the direction of negatively rejecting hypotheses 5-b and 5-c. That is, girls low on physical and height ages tend to accumulate the greater percentage of positive "total" self-image responses. It will be remembered that this same trend for girls was also noted for physical and social self-image responses. The general conclusion seems to be that boys and girls high on organismic, mental, reading, and education ages along with boys high on weight age give a significantly greater percentage of positive total self-image

responses than children low on those growth measures.

B. Discussion of the Results

With certain noted exceptions, the results of this study are in essential agreement with the proposition suggested in chapter I and stated in chapter II that, "high status children show a more positive, satisfied image of self than do low status children."

It has been demonstrated that the middle-grade children at the University School who show a higher growth status for organismic age than their peers generally manifest a more satisfied and positive physical self-image, intellectual self-image, achievement, self-image, and "total" self-image. This finding, however, was not confirmed for social self-image responses. There certainly does appear to be a relationship between the total growth status of the "whole" child and his self-image.

Evidence also points strongly to the fact that children with the higher mental ages, reading ages, and education ages exhibit a more positive intellectual self-image, achievement self-image, and total self-image. These results are consistent with the earlier conclusion of Stevens (75) who, although working with college students, also found that the brighter students and higher achievers tend to conceive achievement and intellectually related personality characteristics as more salient than students who were less bright and lower in achievement.

Cattell's (14) observation that there is a "real" self and an "ideal" self seems to be substantiated in this study as figures II, IV, VI, VIII, and X on pages 93 to 99 verify. As found in this study, the "ideal" self-images of both the high status children and low status children are very much alike. On the other hand, there is a much wider distribution on the real or "attributed" self-image scores. This is illustrated in figures I, III, V, VII, and IX on pages 92 to 98. A similar observation was made by Chickering (15) who, while working with ninth graders, found that the ideal self-images of underachievers and overachievers were more similar than their actual self-images.

Contrary to expectations, there is evidence that low status girls in physical and height ages give the greater percentages of social, physical, and total self-image responses. Apparently there is a tendency for low status girls in physical and height ages to over-evaluate their physical and social characteristics. Girls appear to be more sensitive about physical characteristics and differences in height than do boys. This was also noted by Jersild (36, pp. 144-147), who studied 2,893 boys and girls in grades four through senior year in college. He found that a greater percentage of girls over boys in all grades consistently mentioned physical characteristics in reporting "What I Dislike About Myself." Conversely, he also found that a greater percentage of girls over boys mentioned

physical characteristics in reporting "What I Like About Myself." In any case, it would appear that physical characteristics play a more prominent role in a girl's concept of self than in a boy's concept of self. It could be speculated that a girl's social success, indeed, success in life itself, is influenced more by her physical characteristics than is the case for a boy. Hence, differences in physical characteristics may be more conspicuous in a girl's self-image. Low status girls in physical and height ages may well be distorting their real image of self in an effort to live up to cultural expectations if not to their own.

Most personality theories assume the self to be a direct result of, and by-product of social interaction. Sullivan (27) suggests that the self is realized on the basis on complex interpersonal relations, from experiences of approbation and disapproval, and reward and punishment. According to a holistic theory of child development, a child's inherent and irrevocable design for growth influences to a large extent not only the quality of his social interactions and interpersonal relationships, but also his experiences of approbation and disapproval, reward and punishment. It is hardly surprising, then, that low status children in respect to total maturity or lower over-all achievement potential tend to have a more negative self-image.

C. Implications for the Education Process

Although the children in this study are a sample of a

select group, coming as they do from predominately professional families of high socio-economic means and superior intelligence, there would appear to be certain conclusions applicable to children in general.

Since the child spends much of his time in school, it is not unreasonable to assume that the role the school plays in shaping his emerging self-image is second only to the home. Jersild (36) writes, "Nearly all the important currents in a young person's social relationships with his peers flow through his life in school. It is the theater in which much of the drama of the child's life is played. It is the most common meeting ground." (p. 90) The school is also one place where the child is constantly comparing himself with others and where he is especially sensitive to cues of praise and reproof, acceptance and rejections not only from his peers, but particularly from his teachers. There is little question but that all children grow differently. In any given class, even in any class of above-average children such as those studied here, there will be children who are physically, emotionally, and intellectually less mature than their peers. Jersild (36) writes, "School is such a threat to their self picture that it is almost intolerable..." (p. 100) It is these children, who are likely to be reminded again and again of their shortcomings, failings, and limitations to whom the teacher must be sensitive in helping to face and to deal with the

realities of life. It remains for the teacher to bring to bear all the skills at his disposal, not only in the business of dispensing knowledge, but also in creating an atmosphere which encourages children to realistically accept themselves for what they are and what they can achieve.

In spite of attempts made to alter the fact, children will continue to exhibit differences in growth status within their respective classroom groups. If the child is to achieve a healthy adjustment, parents and teachers alike must adapt their expectations to the growing child rather than attempting to force him to seek standards incompatible with his true abilities.

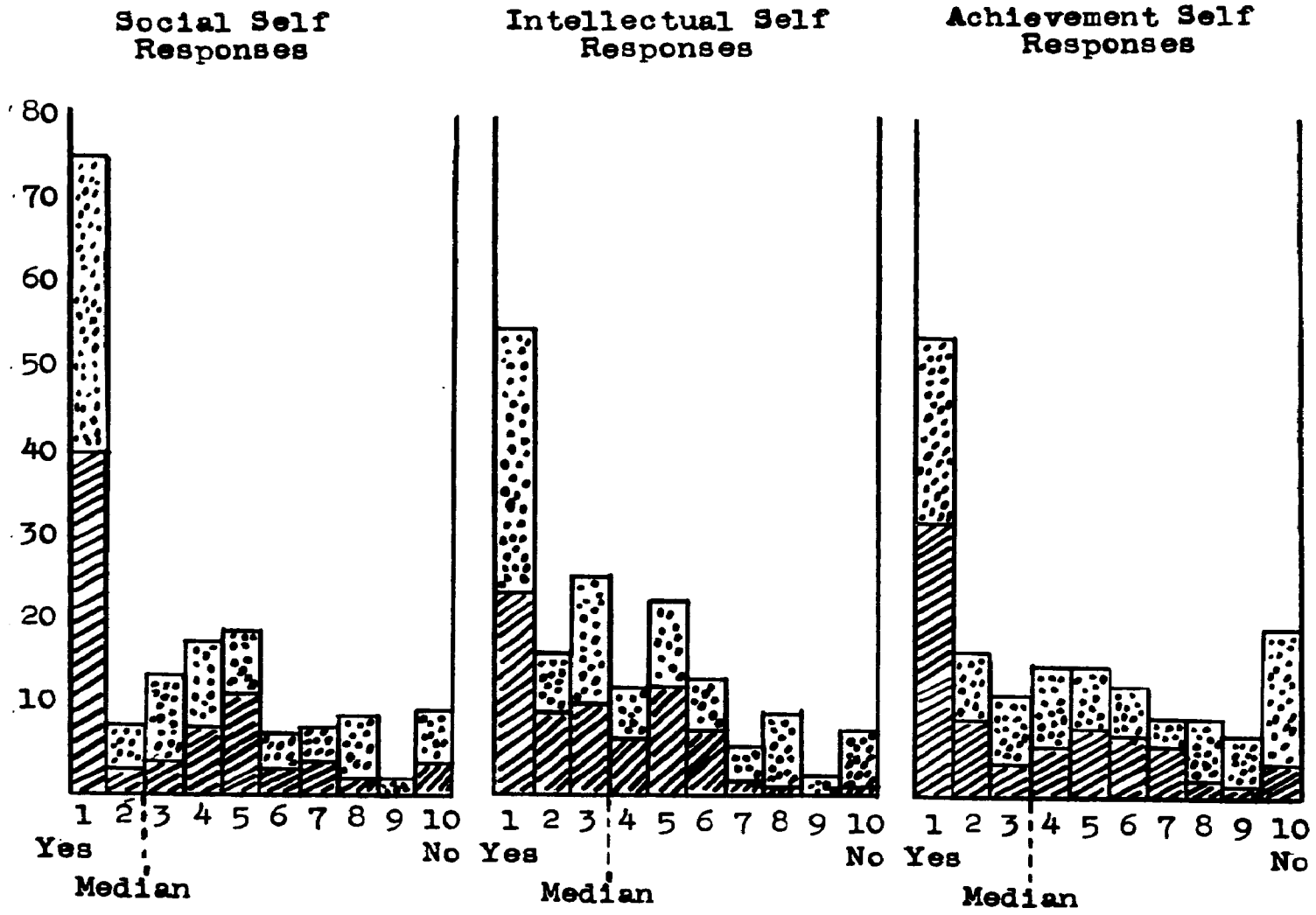
It makes little difference whether a child is tall or short or whether he is exceptionally bright or just average, the important thing is how the rest of the world has made him feel about himself.

APPENDIX A

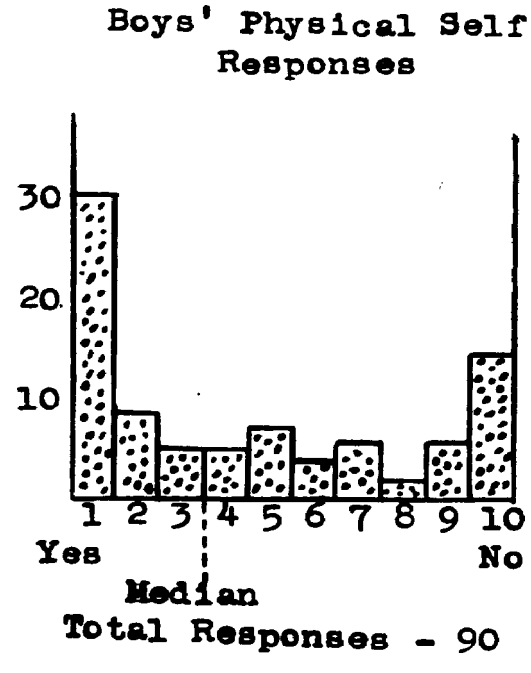
Figure I

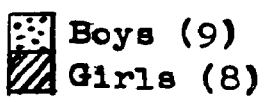
DISTRIBUTION AND MEDIAN OF ATTRIBUTED SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR THIRD GRADE BOYS AND GIRLS

Responses on left of median are positive
Responses on right of median are negative



Total number of responses for each questionnaire above is 170





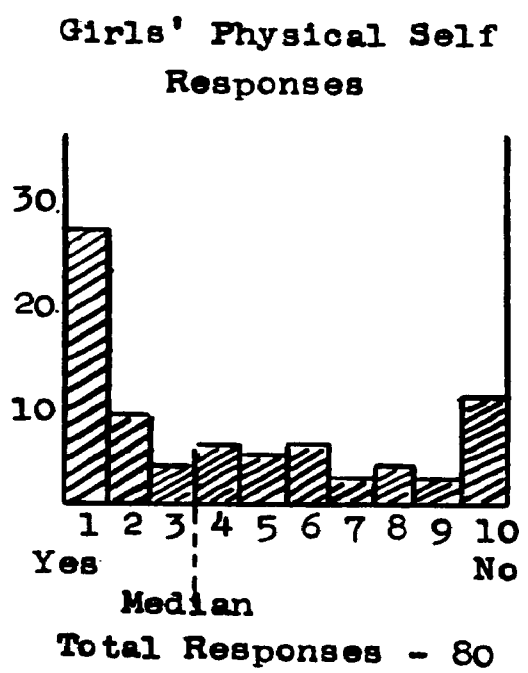


Figure II

DISTRIBUTION OF IDEAL SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR THIRD GRADE BOYS AND GIRLS

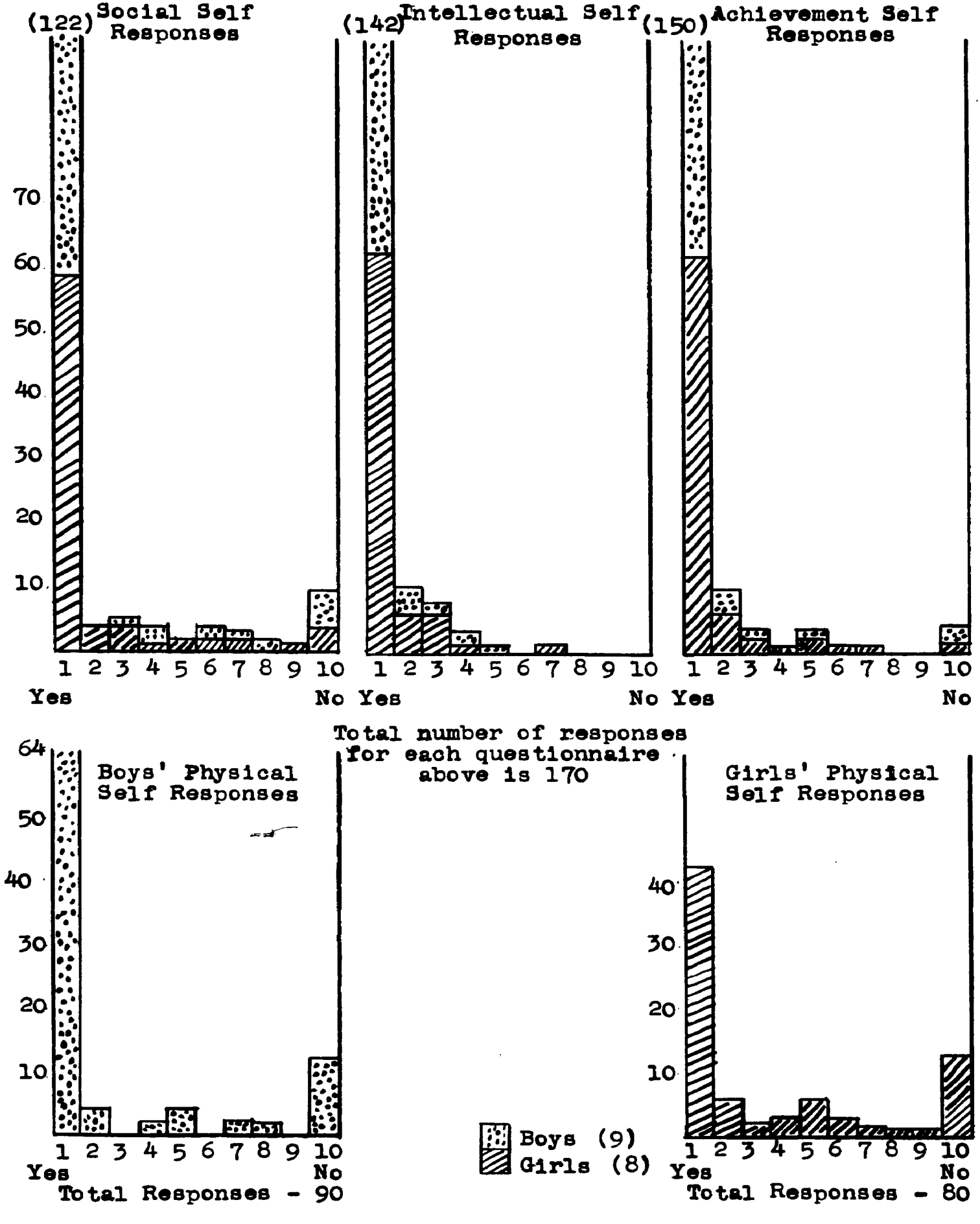
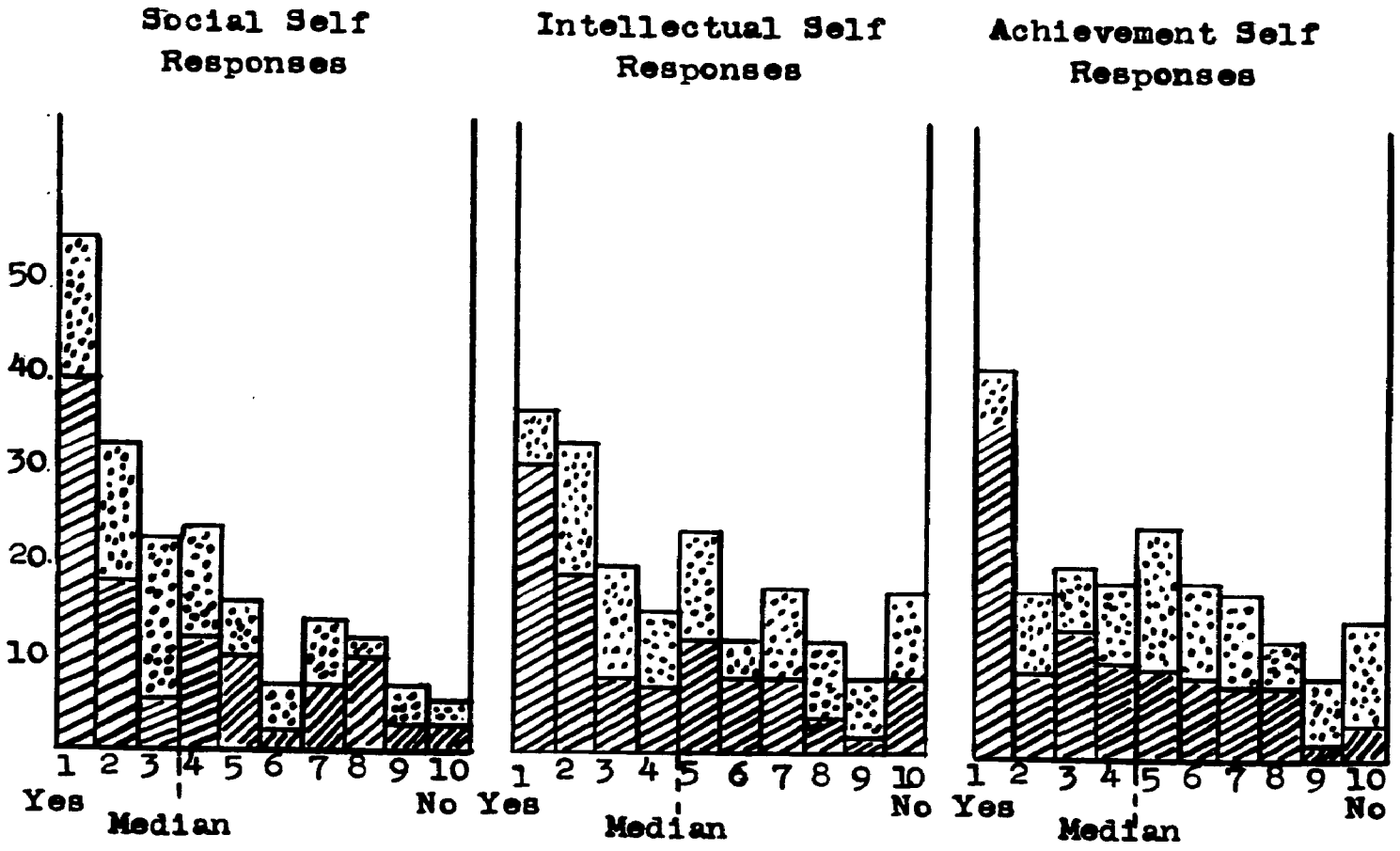


Figure III

DISTRIBUTION AND MEDIAN OF ATTRIBUTED SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR FOURTH GRADE BOYS AND GIRLS

Responses on left of median are positive
Responses on right of median are negative



Total number of responses for each questionnaire above is 200

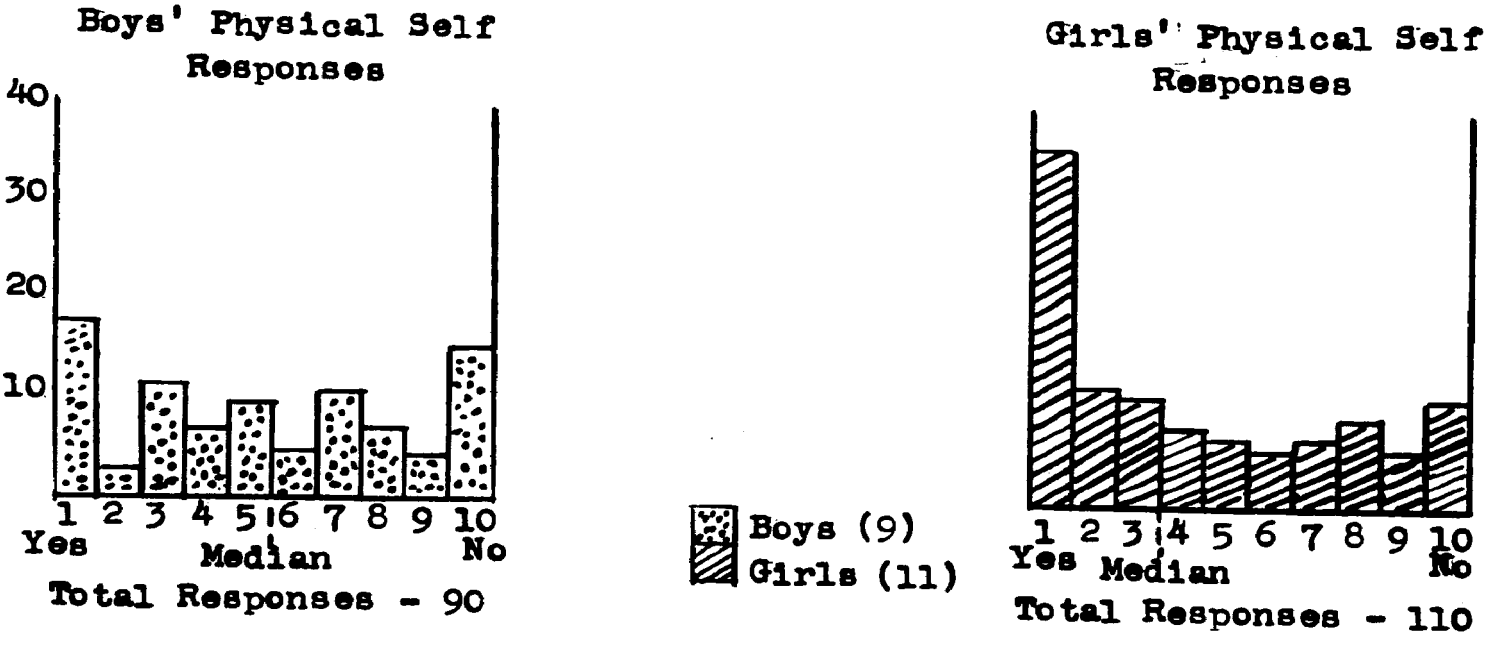


Figure IV

DISTRIBUTION OF IDEAL SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR FOURTH GRADE BOYS AND GIRLS

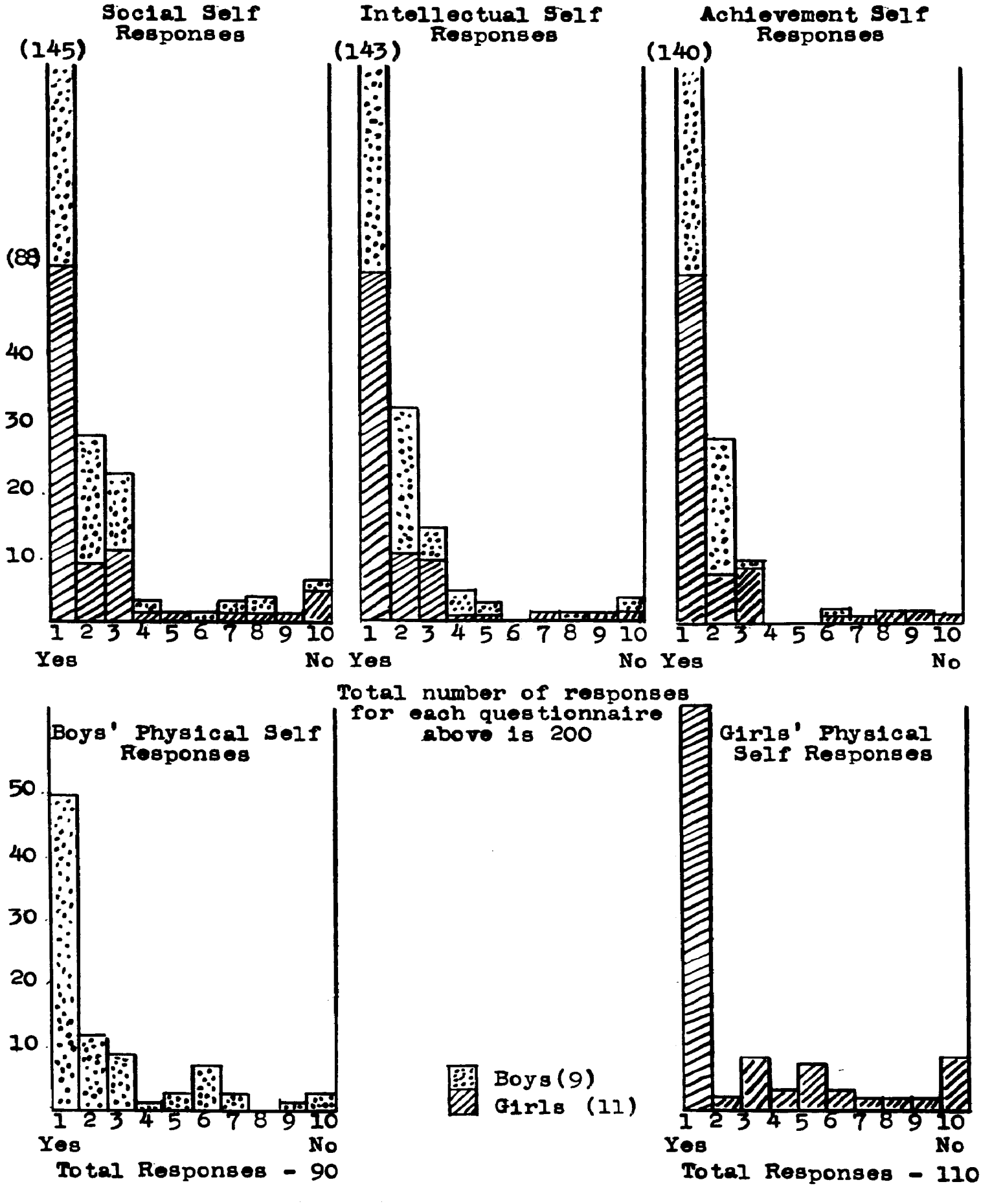
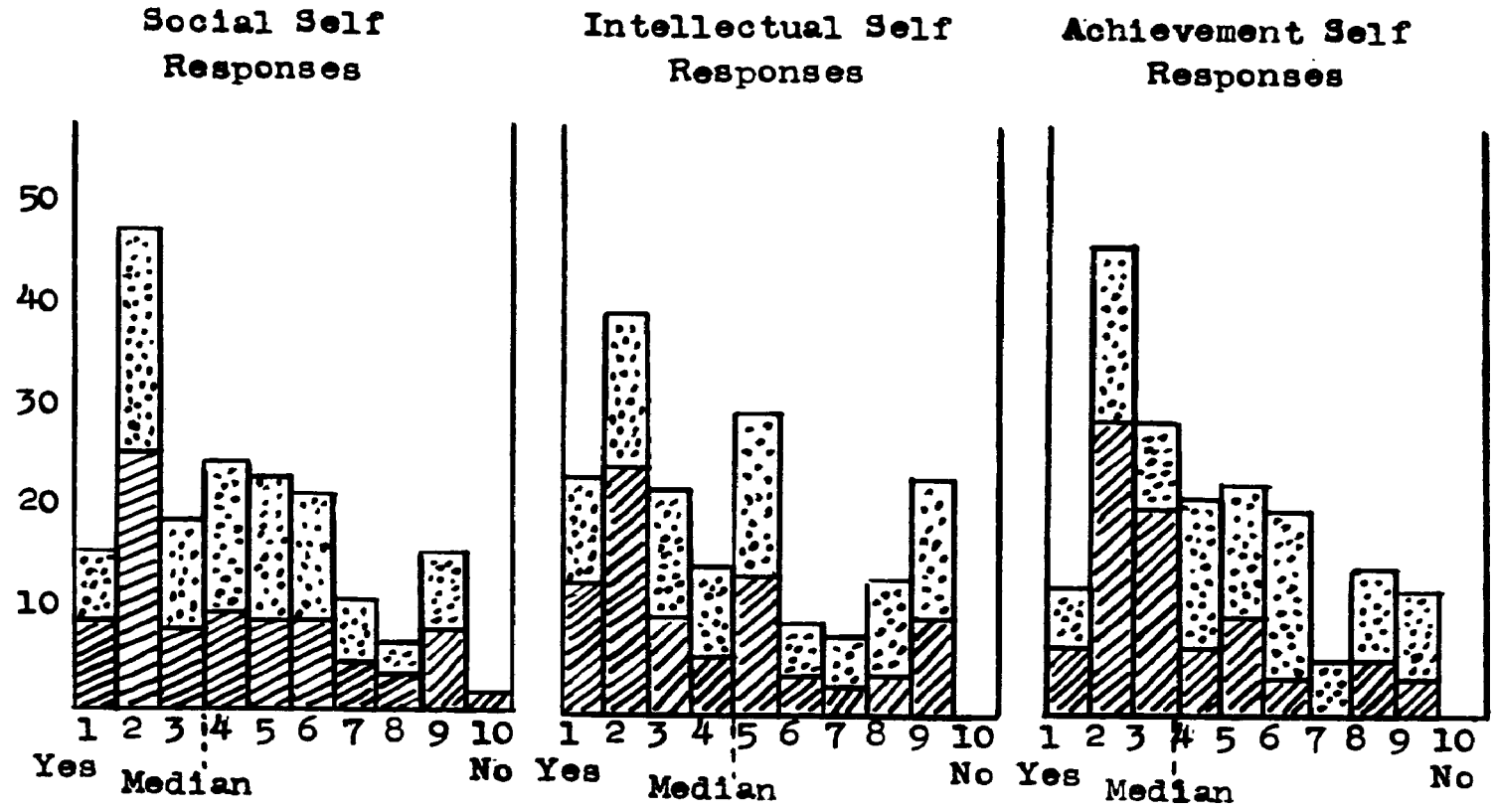


Figure V

DISTRIBUTION AND MEDIAN OF ATTRIBUTED SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR FIFTH GRADE BOYS AND GIRLS

Responses on left of median are positive
Responses on right of median are negative



Total number of responses for each questionnaire above is 190

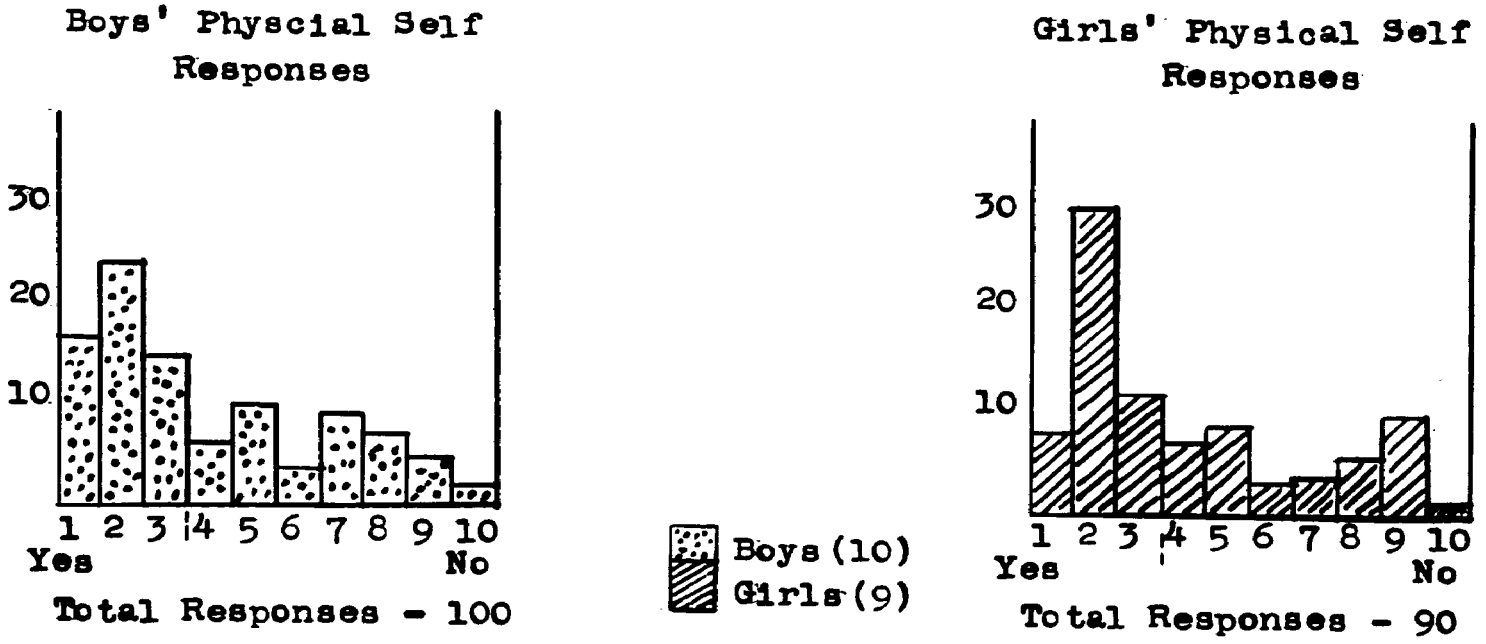
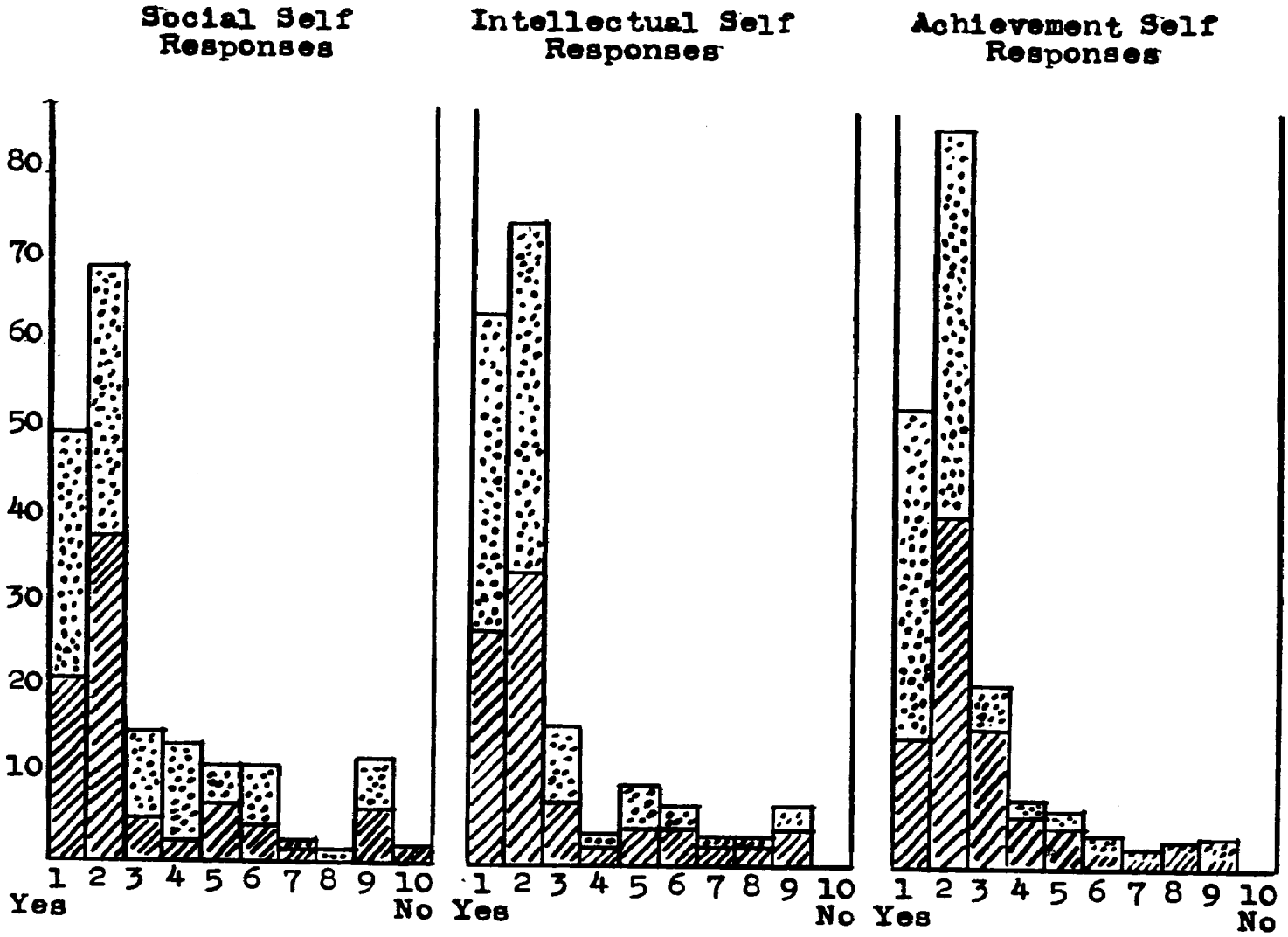
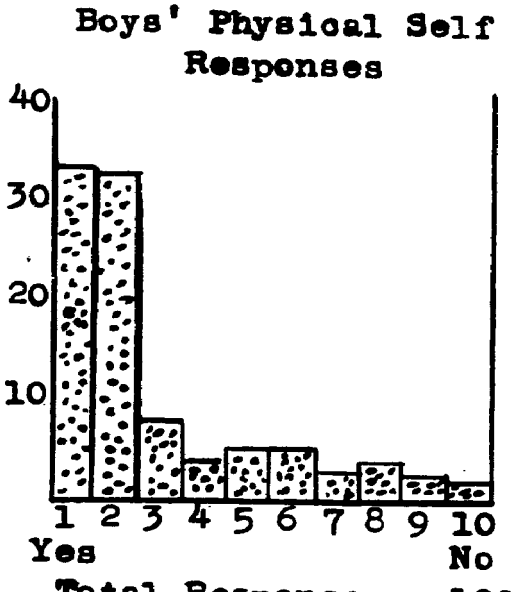


Figure VI

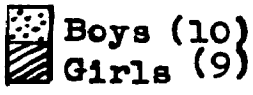
DISTRIBUTION OF IDEAL SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR FIFTH GRADE BOYS AND GIRLS

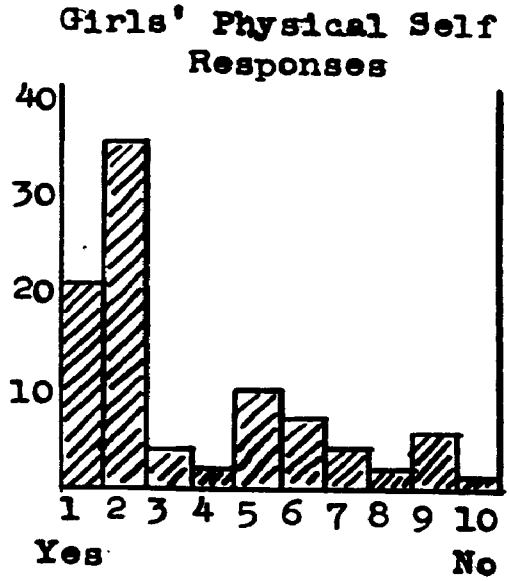


Total number of responses for each questionnaire above is 190



Total Responses - 100



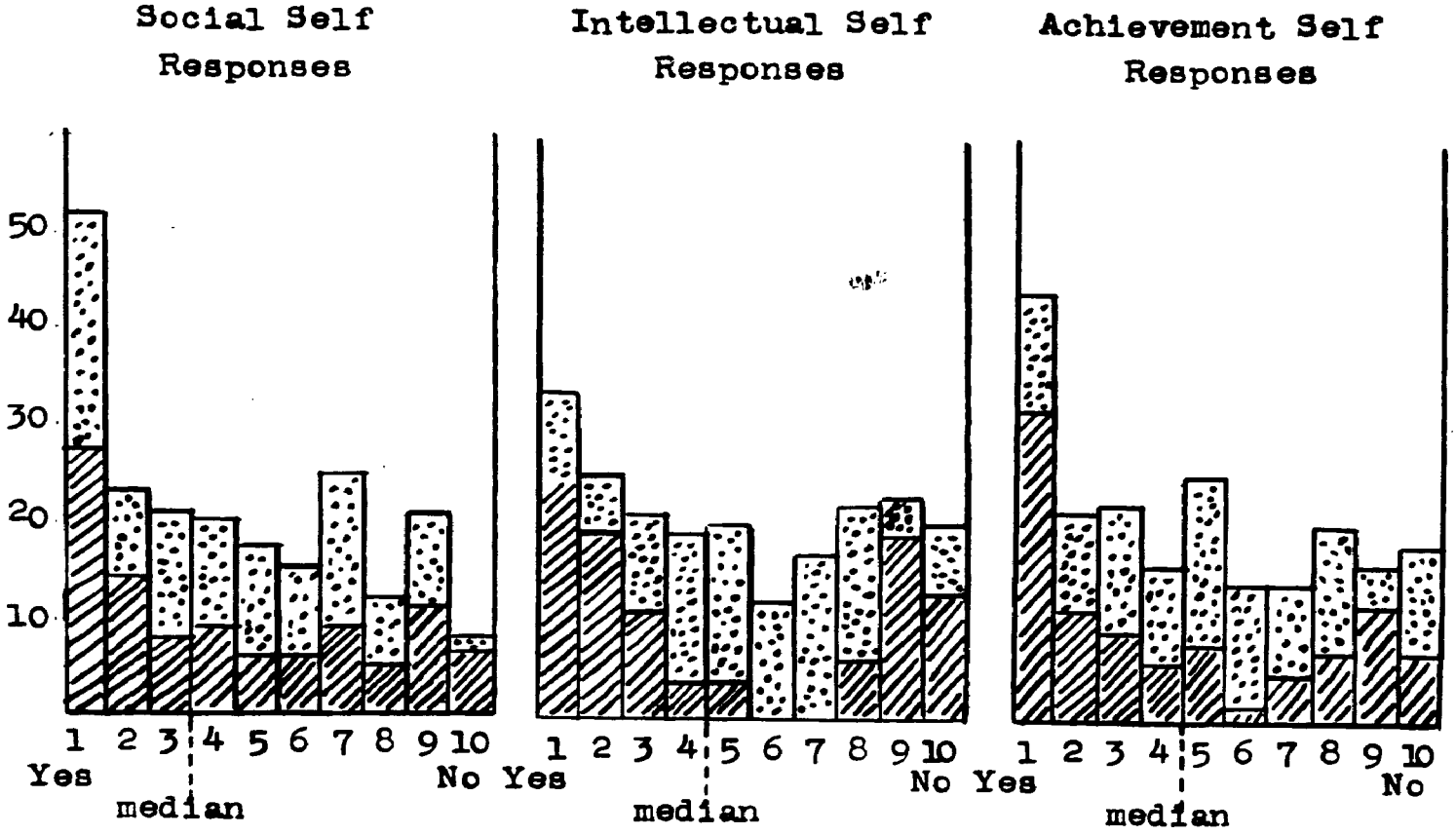


Total Responses - 90

Figure VII

DISTRIBUTION AND MEDIAN OF ATTRIBUTED SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR SIXTH GRADE BOYS AND GIRLS

Responses on left of median are positive
Responses on right of median are negative

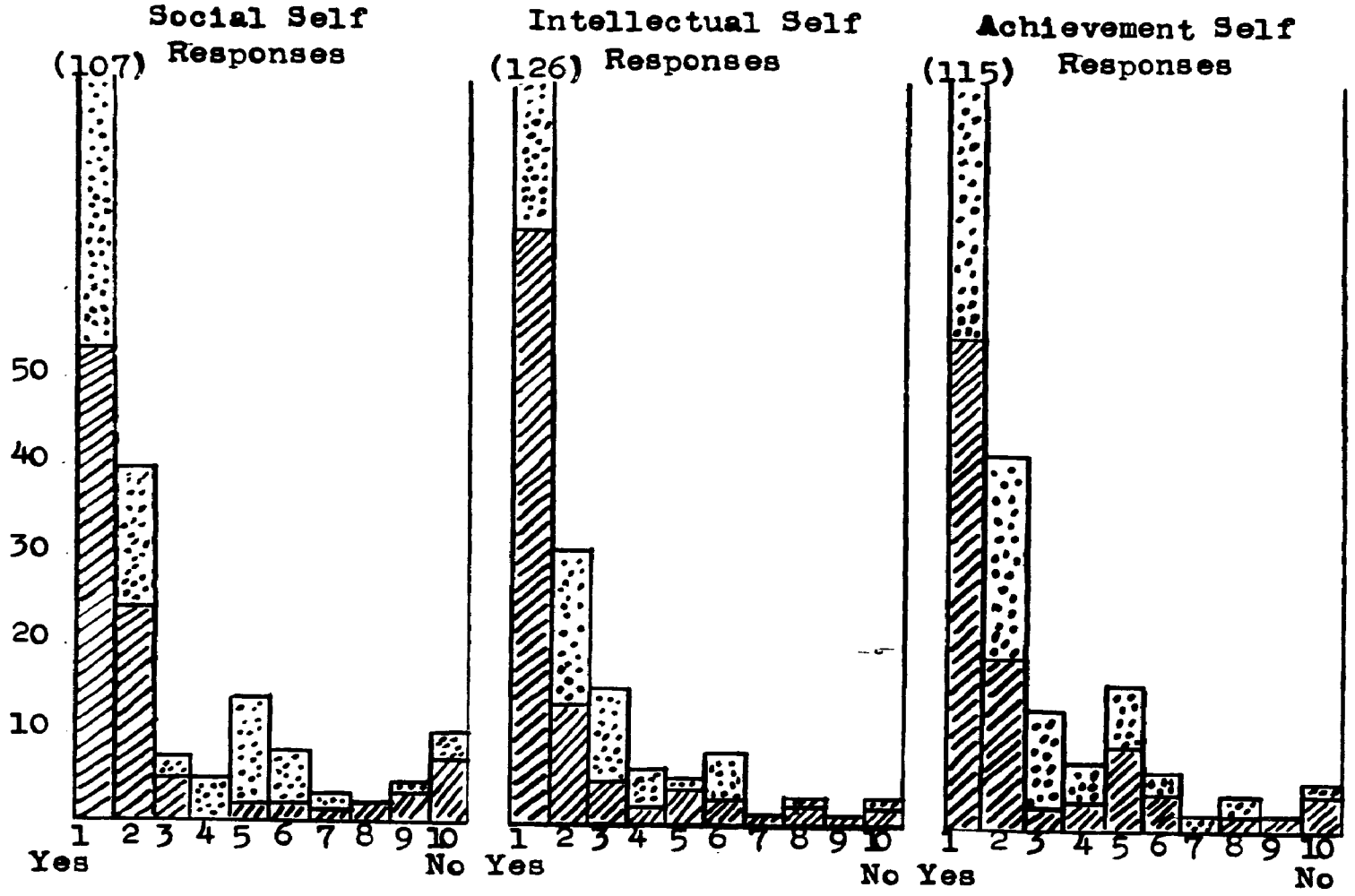


Total number of responses for each questionnaire above is 210



Figure VIII

DISTRIBUTION OF IDEAL SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR SIXTH GRADE BOYS AND GIRLS



Total number of responses for each questionnaire above is 210

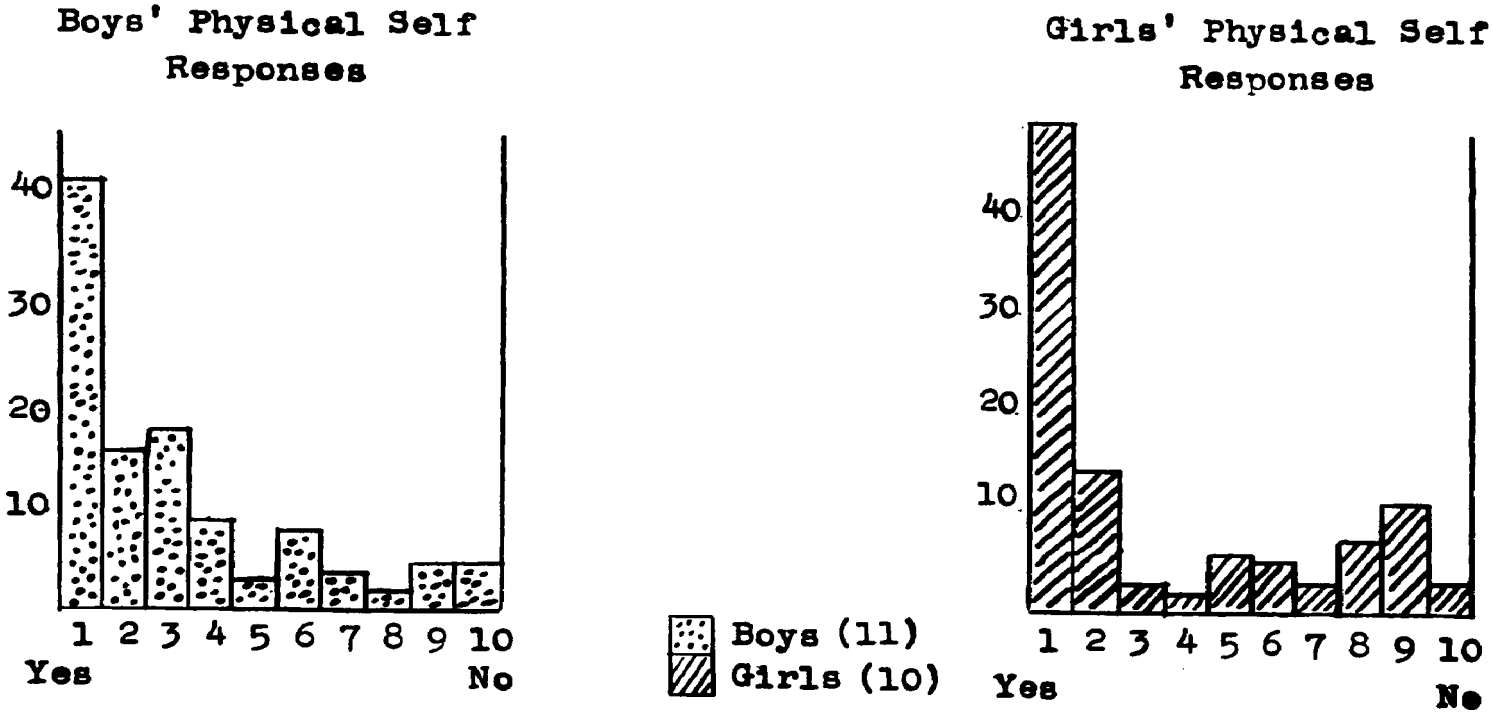
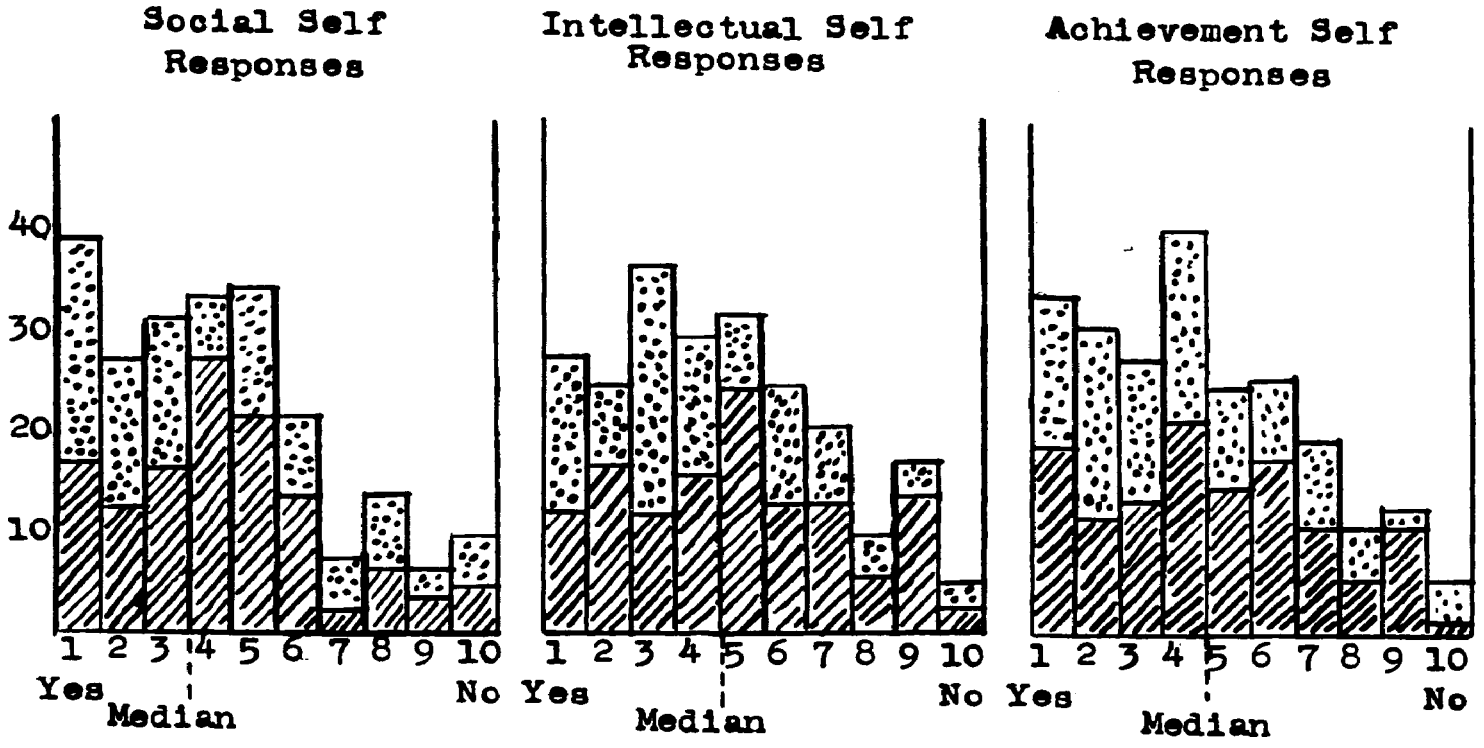


Figure IX

DISTRIBUTION AND MEDIAN OF ATTRIBUTED SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR SEVENTH GRADE BOYS AND GIRLS

Responses on left of median are positive
Responses on right of median are negative

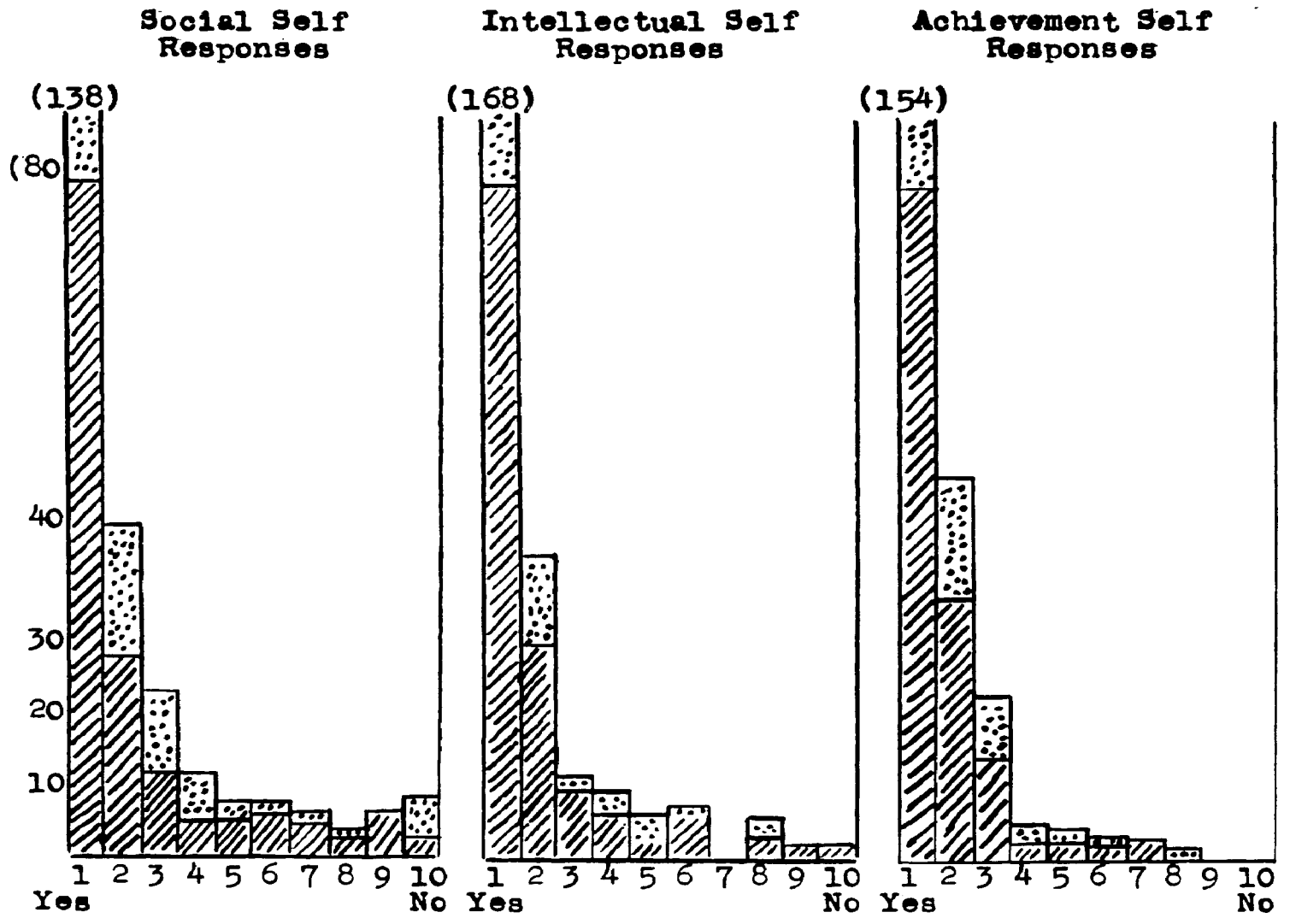


Total number of responses for each questionnaire above is 230



Figure X

DISTRIBUTION OF IDEAL SELF-IMAGE RESPONSES ON EACH QUESTIONNAIRE FOR SEVENTH GRADE BOYS AND GIRLS



Total number of responses for each questionnaire above is 230



APPENDIX B

DIRECTIONS FOR ADMINISTERING THE QUESTIONNAIRES

Explain that these questionnaires are simply ways of learning more about how boys and girls their age think and feel about certain things. Put the following sample statement on the board.

Harold (Mary) can run faster than any boy (girl) in class.

Am I just like him(her)?
Do I wish to be just like him (her)?



Make clear that the names do not refer to anyone in class and if they do, it is only accidental and not by intention. Go on to explain in somewhat the following manner:

If you think you are just like Harold (Mary) you would put a mark on"yes." If you think you are not a bit like Harold (Mary), but that you are the slowest runner in class, you would put a mark on "no." If you think you are a slow runner, but not the slowest in class, you would put a check somewhere close to "no." If you think you are just about medium, you would put a mark in the middle. And then you ask yourselves, "Do you wish to be just like Harold (Mary)?" If you wished to be the fastest runner in class, you would then mark on "yes" or near it depending on how strongly you wished to be the fastest runner. But if you didn't wish to be the fastest runner in class you would mark on "no" or somewhere near it depending, again, how strongly you felt about not wishing to be the fastest runner. I'm going to pass out some sheets of paper now with questions something on the same order I've written on the board. I want you to answer them in the same way you saw me demonstrate on the board. Remember to put down <u>what you really feel</u>. Look at the first question together with them. Repeat directions.

APPENDIX C

BOYS' PHYSICAL SELF-IMAGE QUESTIONNAIRE

1. Peter is a big, strong boy who always wins at games.

	1	2	3	4	5	6	7	8	9	10
Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

2. Sam is one of the shortest boys in the class. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

3. Billy is taller than most of the rest of the boys in class.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

4. Jim weighs more than any of the other boys. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

5. Steven is one of the thinnest kids in class. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

6. Allen is one of the best ball players in class.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

7. Walt is big and strong enough to play football real well.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

8. George is smaller than anyone else in class. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

9. Marty seems to have grown up faster than the rest of the kids in class.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

10. Jackie does not seem to be growing as fast as the other kids in class. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

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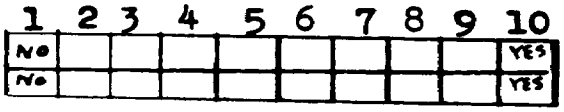
* Questions where the greater number of responses were on the "No" end of the scale. To maintain consistency in scoring, the "Yes" and "No" cells are simply reversed so that a positive response always occurs on the left side of the scale.

** This procedure is followed for all of the questionnaires.

GIRLS' PHYSICAL SELF-IMAGE QUESTIONNAIRE

1. Joan is one of the shortest girls in the class. *

   Am I just like her?
   Do I wish to be just like her?



2. Alice is taller than most of the rest of the girls in the class. *

   Am I just like her?
   Do I wish to be just like her?



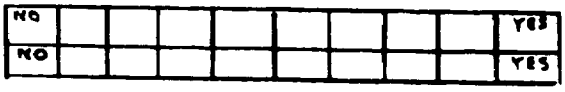
3. Mary weighs more than any of the other girls. *

   Am I just like her?
   Do I wish to be just like her?



4. Nancy is one of the thinnest kids in class. *

   Am I just like her?
   Do I wish to be just like her?



5. Peggy does not seem to be growing as fast as the other kids in class. *

   Am I just like her?
   Do I wish to be just like her?



6. Barbara seems to have grown up faster than the rest of the kids in class.

   Am I just like her?
   Do I wish to be just like her?



7. Judy is smaller than anyone else in class. *

   Am I just like her?
   Do I wish to be just like her?



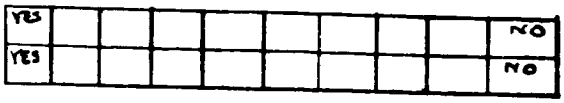
8. Ann is big enough to play basketball real well.

   Am I just like her?
   Do I wish to be just like her?



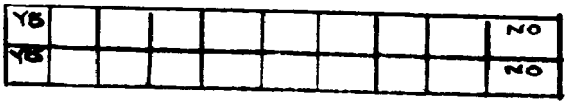
9. Betty is a big, strong girl who always wins at games.

   Am I just like her?
   Do I wish to be just like her?



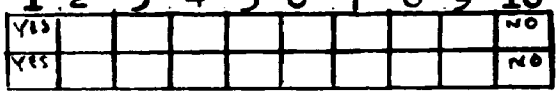
10. Doris is just the right size and weight.

    Am I just like her?
    Do I wish to be just like her?



BOYS' AND GIRLS' INTELLECTUAL SELF-IMAGE QUESTIONNAIRE **

1. John (Mary) does real well in all of his school work.



2. Harry (Joan) is one of the smartest kids in school.



3. Richard (Nancy) is not very smart in school. *



4. School is very easy for Jerry (Mary).



5. Alfred (Judy) is kind of "dumb" in his school work. *



6. David (Betty) understands everything the teacher says in class.



7. Ted (Ann) gets his work done faster than anyone in class.



8. School is very hard for Larry (Doris). *



9. George (Barbara) can answer almost all the questions the teacher asks him.



10. Ralph (Peggy) always has good ideas for things to do in class.



** The Intellectual, Achievement, and Social self-image questionnaires were the same for both the boys and the girls. The only difference was in using male names for the boys and female names for the girls on their separate questionnaires.

BOYS' AND GIRLS' ACHIEVEMENT SELF-IMAGE QUESTIONNAIRE

1. Teddy (Joan) is one of the best readers in the class.

	1	2	3	4	5	6	7	8	9	10
Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

2. Terry (Alice) can spell almost any word he hears.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

3. Ron (Mary) is real good in arithmetic.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

4. Billy (Nancy) is a very slow reader. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

5. Mike (Judy) can write better than anyone in class.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

6. Howard (Peggy) knows the meaning of more words than most of the other kids.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

7. Arithmetic problems are the hardest things in school for Eddie (Barbara). *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

8. Johnny (Ann) is a real fast reader.

Am I just like him?	YES									NO
Do I wish to be just like him?	YES									NO

9. Jerry (Betty) takes longer to do his classwork than anyone else in the room. *

Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

10. David (Doris) always makes a lot of mistakes when he reads. *

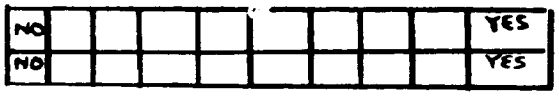
Am I just like him?	NO									YES
Do I wish to be just like him?	NO									YES

BOYS' AND GIRLS' SOCIAL SELF-IMAGE QUESTIONNAIRE

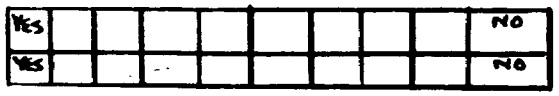
1. Billy (Joan) can get the other kids to do whatever he wants them to do.



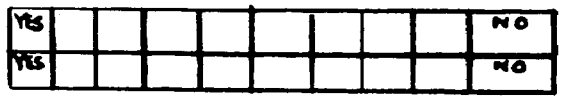
2. Herbert (Alice) is always trying to get the other kids to do what he wants to do. *



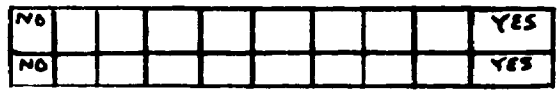
3. Albert (Mary) is one of the friendliest kids in class.



4. Sam (Nancy) has more friends than any of the other kids.



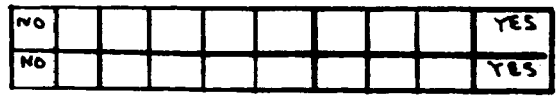
5. Eddie (Judy) goes to the teacher for help more than anyone else in the room. *



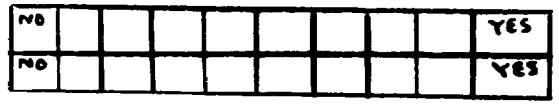
6. Gene (Peggy) is always doing nice things for the other kids.



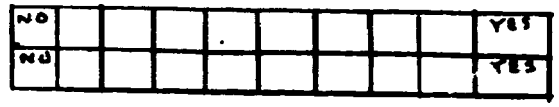
7. Ray (Barbara) is always ordering the other kids around. *



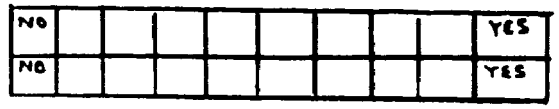
8. Fred (Ann) doesn't ask the teacher for much help. He would rather go to the other kids in the room for any help he needs. *



9. Terry (Betty) is always being bossed around by the other kids. *



10. Teddy (Doris) doesn't care what the teacher or anyone else tells him to do. He does exactly what he feels like doing. *



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