THE RELATIONSHIP BETWEEN ANXIETY AND THE SELF STRUCTURE

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ABSTRACT

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by Kin Ling Chow

The main problem investigated was the relationship between an individual's anxiety level and the interrelationship among his perceived self, his "reasonably satisfactory" self, and his ideal self. The "reasonably satisfactory" self was seen as an essential aspect of an individual's self structure. An individual's feeling toward his preceived self would be detected by comparing his "reasonably satisfactory" self with his perceived self and his ideal self. The individual who feels satisfied with himself was believed to have a lower anxiety level than the person who does not. It was therefore hypothesized that there would be a negative relationship between an individual's anxiety level and the discrepancy among the three aspects of the self structure.

The Children's Form of the Manifest Anxiety Scale and a revised Bills Index of Adjustment and Values were administered to 247 ninth-grade boys and girls. Each subject's anxiety level and his three aspects of the self structure were assessed by his responses to these two tests. As contrasted with previous studies which took the difference between the perceived and the ideal self, the discrepancy

score among the three aspects of the self structure in this study was derived from the difference between the number of traits concerning which an individual had a positive view toward his perceived self and those concerning which he had a negative view.

The subjects were found to have the ability to differentiate among the three aspects of the self structure. Girls had a higher mean anxiety score but a lower mean discrepancy score than boys. Using the "t" technique to test the hypotheses, the main results of this study were:

1. Subjects with positive discrepancy scores tended to have a lower level of anxiety than those with negative discrepancy scores.

2. Subjects with high positive discrepancy scores tended to have a lower level of anxiety than those with low positive discrepancy scores. While boys with high negative discrepancy scores had a higher level of anxiety than those with low negative discrepancy scores, no difference was found between the girls with high and with low negative discrepancy scores.

3. The anxiety level of the subjects with extremely high positive discrepancy scores as a group was found to be lower than those with extremely high negative discrepancy scores.

A negative relationship was found between the subject's anxiety level and the discrepancy among the three aspects of the self structure.

THE RELATIONSHIP BETWEEN ANXIETY AND THE SELF STRUCTURE

By

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CHAPTER I

INTRODUCTION

The Nature of Anxiety

Representatives of different schools of thought in psychology generally agree that anxiety is a diffuse apprehension, unspecific, vague, and objectless. Its special characteristics are the feelings of uncertainty and helplessness felt in a threatening situation. As Rollo May defines it, "anxiety is the apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality."[1]

The measurement of anxiety is, however, quite difficult, since, like pain, it is highly idiosyncratic. A situation with threatening aspects will be experienced differently based upon the degree of threat felt by various individuals. Also, variation in the context of similar situations will cause different anxiety levels for the same individual. Nonetheless, scales have been built to measure an individual's general anxiety level using his self-report

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[1]Rollo May, The Meaning of Anxiety, New York: Ronald, 1950, p. 191.

of physical or psychological symptoms in a variety of potentially threatening situations.

In such scales, the individual is assumed to be consciously aware of his response. If overt symptoms are reported to occur often, it is taken as an indication that anxiety is frequently experienced by a particular individual. The anxiety measured by this kind of scale is termed "manifest anxiety" because it reflects conscious awareness. In the present study, anxiety will be assessed by the use of such a scale: the Children's Manifest Anxiety Scale.[2]

We know that anxiety generally has a significant effect on human behavior. Its influences are commonly reflected in the way people perform or handle problems. The general negative results are the closing off of awareness, inefficiency and rigidity during performance, and the use of defense mechanisms in the attempt to release the discomfort of anxiety. On the other hand, there also exists a positive effect of anxiety. Anxiety may serve to alarm the individual and thereby prepare him to cope with a potential threat. Many kinds of human achievement are, in part, actually the results of anxiety dealt with constructively.

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[2] A. Castaneda, B. R. McCandless and D. S. Palermo, "The Children's Form of the Manifest Anxiety Scale," Child Development, 1956, 27, 317-326.

The development of an adequate person is an important aim of formal education and most teachers seek to help students deal with the negative effects of anxiety by developing their ability to deal constructively with anxiety. But this can only be done if the teacher understands the nature and the source of anxiety. The present study is an attempt to study an essential source of anxiety, namely, the self, and its relationship to anxiety.

The Self

The values an individual holds essential to his existence as a personality are one of the main components of his self structure. Rollo May's definition of anxiety, given above, can then be restated: anxiety is the apprehension cued off by a threat to the self.

The self is the organized totality of an individual's perception as related to the particular individual. It is "a composite of a person's thoughts and feelings which constitute his awareness of his individual existence, his conception of who and what he is."[3] It is developed throughout the years of his growth.

The components of self explored by social scientists during the past decade are (1) the perceived self, or how

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[3]A. T. Jersild, In Search of Self, New York: Teachers College, Columbia University, 1952, p. 9.

the individual views himself; (2) the social self, or how he thinks other people think of him; (3) the ideal self, or what he would most like to be; and (4) self acceptance, or his attitude toward his own self and his personal qualities.

Human behavior is significantly determined by a person's perception of himself. The way people view themselves and their environment constitutes reality to them. This reality forms the basis for their feelings, thoughts, decisions, and actions. As an essential determinant of an individual's reality, the influence of self on behavior in school setting is great. There is evidence that a student's perception of his own ability is closely related to the level of his actual achievement, and his perception of the kind of person he is relates to his personal adjustment.

Self and Anxiety

Most of the studies of the relationship between anxiety and the self have dealt either with the perceived self or the individual's self acceptance. Where the relationship has been to the perceived self, it is a common practice to use certain external criteria to evaluate the desirability of a response--usually with some implicit standard of mental health as a reference point. But if a person's view of himself and his environment constitutes his reality, the valuation against an externally imposed standard is a questionable practice.

The self acceptance dimension is believed to be strong

indication of a person's mental health and adjustment. As self acceptance is commonly defined, it involves an "objective and unemotional recognition of one's abilities and limitations, one's virtues and faults, without undue sense of pride, guilt, or self-blame."[4] Psychologists, however, have had great difficulty in obtaining an estimate of these characteristics. The index used is generally derived either from a person's self-report of how well he likes some of the traits he has or from differences between his estimates of his perceived self and his ideal self. Neither method necessarily reflects how well the individual accepts these traits. The discrepancy between the perceived and the ideal self may be a good picture of the distance of his perceived self and what he sees as expected of him by the society. But depending on whether the individual has or has not internalized society's norms, the discrepancy score may be misleading as an index of the individual's self-acceptance.

As the present investigator sees it, there is another aspect of the self structure which is of great significance to a person. It will be called the "reasonably satisfactory" self. The "reasonably satisfactory" self is a kind of intermediate goal, a goal that a person would try to attain which does not necessarily have to be the same as his ideal. This is a standard that people usually use as a reference for

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[4]Horace B. English and A. C. English, A Comprehensive Dictionary of Psychological and Psychoanalytical Terms, New York: Longmans, Green and Co., 1958, p. 485.

their personal judgments of their own competence. Unlike the ideal self, the "reasonably satisfactory" self has more psychological personal meaning for the individual. It serves as the internal criterion which is the crucial source of how an individual feels about himself. In contrast, the ideal self is an external source because it is socially and culturally determined.

The "reasonably satisfactory" aspect of the self structure is an indication of an individual's feeling about his perceived self. It differs from Bills' measure of self acceptance because the latter involves only an individual's evaluation of his perceived self. The like-dislike dimension used by Bills does not reveal adequately how an individual feels about a certain trait.

When an individual indicates that he dislikes one of his traits, there are two possible interpretations. He may feel ashamed of himself for having the disliked trait because he takes it as a defect of his personal worth as an individual. In such case, it is very possible for him to set up a goal high above his perceived attainment; that is, his "reasonably satisfactory" self will be far different from his perceived self. Or, a person may feel perfectly comfortable to live with the disliked trait. Such a person would feel reasonably satisfied with the particular trait and his "reasonably satisfactory" self will be similar to the perceived self. On the other hand, for the traits liked,

different persons may also have contrary feelings, comfortable and uncomfortable. The reasonably satisfactory self would enable us to distinguish these feelings. When a comfortable feeling is involved, the "reasonably satisfactory" self would be similar to the perceived self; when uncomfortable, it would be quite different from the perceived self, or very possibly similar to the ideal self.

Through the indication of the "reasonably satisfactory" aspect of the self structure, with references to the perceived and the ideal aspects, a person's feeling about himself on certain traits may be revealed. The differences among these three aspects may be taken as an indication of the degree of the individual's internal consistency. When the "reasonably satisfactory" self is similar to ideal self rather than the perceived and when these latter differ, an internal inconsistency is indicated.

An individual has a tendency to strive toward internal consistency. When a person becomes aware of the existence of inconsistency within himself, anxiety is aroused. An intense state of discomfort is felt until there is certain change which brings the individual back to the state of consistency. But this, as we have suggested above, does not mean all kinds of inconsistency felt by an individual are anxiety-inducing. In fact, there are inconsistencies which are unlikely to induce change in an individual. The crucial factor for the change or nonchange is the significance of

the elements involved in the state of inconsistency. All aspects of the self structure do not have the same weight of significance to an individual. But if the individual becomes aware of an inconsistency among two or more aspects of self structure, and if these aspects are important to him rather than to an external source, then anxiety is likely.

The hypothesis of this study is therefore derived. The more a person shows that his "reasonably satisfactory" self is similar to the perceived self rather than the ideal self, the lower would be his anxiety level.

Organization of the Study

The first chapter of this report is a brief introduction to this study. The rationale for the investigation is stated. Chapter II presents a comprehensive review of the relatively pertinent studies in the areas related to this study. Chapter III describes the intruments used, the scoring system specially developed for this investigation, the procedures of research, and a reformulation of the general hypothesis. Chapter IV presents the data for each hypothesis as analyzed by statistical techniques. The last chapter includes a summary, interpretations, and suggestions for further studies.

CHAPTER II

REVIEW OF LITERATURE

The Nature of Anxiety

Rollo May defines anxiety as the apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality.[5] That is, when anxiety is experienced, it is because the very essence of a person's existence as a unique individual is threatened: the perception of one's self as distinct from the world of objects. When this perception is threatened, a person is less able to make adequate evaluation of stimuli. The individual will be aware of the existence of the threat, but incapable of locating exactly where the threat is. Therefore, anxiety is experienced as a diffuse apprehension, unspecific, and vague. Under such circumstances, the apprehension is generally signalled by feelings of uncertainty and helplessness accompanied by physiological and psychological symptoms.

The source of the threat, as further argued by Combs and Snygg, is from inconsistent perceptions of self in the

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[5]May, op. cit., p. 191.

process of fulfillment of basic human needs of self enhancement. They declare that "the effective satisfaction of need requires an organized self. The fact that the phenomenal self has many aspects, however, frequently makes the achievement of self consistency a difficult matter. Differentiations leading to enhancement of one aspect of the self may at the same time threaten other aspects. . . . Threat may arise from inconsistencies within the self even when two aspects of self are fundamentally enhancing."[6] In such a case, the intensity of threat would be partly a function of the peculiar importance of the particular aspect of self.[7]

Anxiety has been studied in the clinical and experimental situation where it was elicited at the time of investigation. During the last decade Taylor succeeded in the construction of a scale for the measurement of anxiety based on the definition of manifest anxiety implicit in Cameron's description of chronic anxiety reactions.[8] These are "characterized by the presence of persistently heightened

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[6]Arthur W. Combs and Donald Snygg, Individual Behavior, New York: Harper & Brothers, 1959, p. 184.

[7]Ibid., p. 176.

[8]J. A. Taylor, "The relationship of anxiety to the conditioned eyelid response," Journal of Experimental Psychology, 1951, 41, 81-92; Taylor, "A personality scale of manifest anxiety," Journal of Abnormal and Social Psychology, 1953, 48, 285-290.

skeletal and visceral tensions, which disturb a person's habitual rhythms of living and predispose him generally to give exaggerated and inappropriate responses on relatively slight provocation."[9] Though Taylor based her test on a different orientation, the characteristics of anxiety with which May was concerned--feelings of uncertainty and helplessness--are also explored by items in Taylor's Scale. Taylor's validation study supplied evidence that the scores from her Manifest Anxiety Scale do reflect the different potentialities for anxiety arousal.[10]

The Effects of Anxiety on Human Behavior

Impairment of mental functioning has been observed as an outcome of anxiety. By comparing two Rorschachs taken by the same person, May found the one completed under a state of anxiety was characterized by a low degree of productivity, a lack of originality, little use of either feeling or thinking capacities, a predominance of vagueness of response, a lack of capacity for relating to concrete realities as compared to the one done under a state of low level of anxiety.[11]

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[9] N. A. Camberon, The Psychology of Behavior Disorders: A biosocial interpretation, Boston: Houghton Mifflin, 1947, p. 249.

[10] J. A. Taylor, "Drive theory and manifest anxiety," Psychological Bulletin, 1956, 53, 303-320.

[11] May, op. cit., p. 248.

There are different effects of anxiety upon intellectual performance depending on the individual's level of intelligence. In one study, increased anxiety felt by the high IQ group was associated with less discriminating judgments whereas the reverse was true of the low IQ group.[12] The intelligent subject seems to become more impulsive in his responses when he is anxious, while the less intelligent subject becomes more cautious or uncertain in his judgments. Yet, overall, inconsistent results have been reported for the relationship between anxiety and intelligence. Granick, and Kent and Davis found that anxiety interfered especially in such tasks as block design, reproduction of designs from memory, and other performance subtests of the Wechsler Intelligence Scale for Children.[13] But a positive relationship was obtained by Amen and Renison between children's Stanford-Binet IQ's and anxiety scores as measured by a projective technique.[14] Allison and Ash, introducing anxiety into a

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[12]Jean S. Kerrick, "The effects of manifest anxiety and IQ on discrimination," Journal of Abnormal and Social Psychology, 1956, 52, 136-138.

[13]S. Granick, "Intellectual performance as related to emotional instability in children," Journal of Abnormal and Social Psychology, 1955, 51, 653-656; Norma Kent and D. R. Davis, "Discipline in the home and intellectual development," British Journal of Medical Psychology, 1957, 30, 27-33.

[14]E. W. Amen, and N. Renison, "A study of the relationship between play patterns and anxiety in young children," Genetic Psychological Monograph, 1954, 50, 3-41.

film-learning situation, also found that raising the students' anxiety was accompanied by an improvement in the scores made on a test.[15]

A close examination of these studies indicates that the differences in the results may have stemmed from an interaction between the intensity of anxiety and the nature of the task. Since all this research was done in different experimental situations, and the instruments used to measure the two main variables differed, some disagreements among the results might be expected. On the other hand, these contradictions may indicate that an inconsistent relationship between anxiety and intelligence exists.

The effects of anxiety upon problem-solving have also been intensively studied. A statistically significant correlation between anxiety and task difficulty was discovered by Castaneda, et al.[16] It was found that the highly anxious children, in comparison with the less anxious ones, tended to perform better on the easy problems and at an inferior level on difficult ones. But the high anxious group made significantly more errors over-all than did the

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[15] S. G. Allison and P. Ash, Relationship of Anxiety to Learning from Films, Pa. State College, Human Engineering Report SDC 269-7-24, April, 1951.

[16] A. Castaneda, D. S. Palermo, and B. R. McCandless, "Complex learning and performance as a function of anxiety in children and task difficulty," Child Development, 1956, 27, 327-332.

low anxious group in a trial-and-error learning situation. Further evidence of the effect of anxiety upon problem-solving is reported by Cowen and Thompson.[17] A positive relationship was found between anxiety and problem-solving rigidity.

Though there is no conclusive agreement, most research results indicate that anxiety influences mental functioning. The intensity of anxiety and the nature of the task to be performed are the two determinants for a facilitating or interfering effect.

Phenomenological Theory of the Self

Phenomenological theory seeks to understand human behavior by emphasizing the individual's own concept of himself as a unique person. The self as the individual who is known to himself is given the central role in personality theory. An individual's perception of himself and of his environment are posited as the fundamental determinants of one's behavior. The main representatives of this school of thought are Combs and Snygg, and Rogers.

Combs and Snygg hold that each individual lives in his own private world, termed a perceptual field. It is the

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[17] E. L. Cowen and G. C. Thompson, "Problem solving rigidity and personality structure," Journal of Abnormal and Social Psychology, 1951, 46, 165-176.

entire universe, including himself, as experienced by the individual at the instant of action.[18] Objectively speaking, it is the individual's interpretation of reality, but it is reality to the particular individual. "It includes all of a person's perceptions, including those about himself and those about things quite outside of himself."[19] They termed these perceptions of the individual himself the "phenomenal self," an organization of all the ways an individual views himself. Within this organization of perceptions of the self, Combs and Snygg further differentiated those concepts about self which appear to be most vital and important to the individual himself as "self-concept."

There is some confusion concerning the definition of self concept among the phenomenological psychologists. Combs and Snygg define the self concept as the organization of the self perceptions which are of most vital importance to the individual. Rogers does not seem to agree with them. He takes the self structure as self-concept. To him, "the self concept or self structure may be thought of as an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities;

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[18] Combs and Snygg, op. cit., p. 20.

[19] Ibid., p. 126.

the percepts and concepts of the self in relation to others and to the environment; the value qualities which are perceived as associated with experiences and objects; and goals and ideals which are perceived as having positive or negative valence."[20] This description is analogous to Combs and Snygg's definition of phenomenal self. The perceptual field is also included due to the relation of the self to the environment.

This confusion of the definition of the self concept leads to ambiguities in its investigation. Rogers' definition of self concept is adopted by numerous researchers. In fact, because of the private nature of Combs' self concept, there are practical problems in carrying out any group study using the concept. It can not be explored unless the vital and important concepts of the self be first discovered for each particular individual.

The Effects of Self Concept as Related to Human Behavior

The importance of self on the human behavior is well stated by Combs and Snygg. "All behavior, without exception, is completely determined by, and pertinent to the perceptual field of the behaving organism."[21] Support for this statement can be found in a number of areas.

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[20]Carl R. Rogers, Client-centered Therapy, Boston: Houghton Mifflin, 1951, p. 136.

[21]Combs and Snygg, op. cit., p. 20.

Positive self concepts, for example, were found related to generally adequate social functioning. Through a study of the effectiveness of groups of people holding themselves in high or low self-esteem, Mussen and Porter found that people who had the highest feelings of adequacy were rated by others as more effective in a discussion group.[22] In an experimental situation, Dittes found that persons who were made to feel well accepted in a group felt the group more attractive than did those who were made to feel poorly accepted.[23]

Self concept was also found to be positively related to school achievement. In a study of fifth- and sixth-grade children by Coopersmith, a correlation of .36 was obtained between self concept and school achievement.[24] Walsh's finding of the differences in self concept of the bright underachievers and adequate achievers supplied further evidence of the relationship between self concept and school

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[22] P. H. Mussen and L. W. Porter, "Personal motivations and self concepts associated with effectiveness in emergent groups," Journal of Abnormal and Social Psychology, 1959, 59, 23-27.

[23] J. E. Dittes, "Attractiveness of group as function of self-esteem and acceptance by group," Journal of Abnormal and Social Psychology, 1959, 59, 77-82.

[24] S. Coopersmith, "A method for determining types of self esteem," Journal of Abnormal and Social Psychology, 1959, 59, 87-94.

achievement.[25] She used the Driscoll Play Kit as a measure of the self concept. Each subject was asked to make up ten stories from incomplete stems. As compared to the adequate achiever, the underachiever tended to project the boy doll as being restricted, not free to pursue his interests and acting defensively. In other words, the underachievers did not have as positive a self concept as the adequate achievers.

Further evidence of a positive correlation between self concept and school achievement were obtained by Bledsoe and Garrison, and Brookover et al. in their studies of elementary school pupils.[26] Using the Incomplete Sentences technique to provide an indirect index of adjustment, and self ratings of adjectives as an index of self concept, Crandall and Bellugi obtained a positive correlation between self concept and behavior adjustment.[27]

Much more consistent data regarding the effects of self concept on human behavior are available than those on

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[25]Ann M. Walsh, Self-concepts of Bright Boys with Learning Difficulties, New York: Bureau of Publications, Teachers College, Columbia University, 1956.

[26]Joseph C. Bledsoe and Karl C. Garrison, The Self Concepts of Elementary School Children in Relation to Their Academic Achievement, Intelligence, Interests, and Manifest Anxiety, Athens, Georgia: University of Georgia, 1962, p. 84; Wilbur B. Brookover, et al., Self Concept of Ability and School Achievement, East Lansing, Michigan: Office of Research and Publications, Michigan State University, 1962, p. 72.

[27]V. J. Crandall and Ursula Bellugi, "Some relationships of interpersonal in intrapersonal conceptualizations to personal-social adjustment," Journal of Personality, 1954, 23, 224-232.

the effects of anxiety. There is agreement that a positive relationship exists between self concept and individual performance.

Studies of the Relation of Perceived Self to Anxiety

One of the approaches adopted by investigators for the study of the relation between anxiety and self concept is to measure the perceived self and then correlate it with a measurement of anxiety. Representative studies were done by Lipsitt and Coopersmith.

In Lipsitt's study, the subjects were 300 fourth-, fifth-, and sixth-grade boys and girls.[28] The instrument for elicitating the subject's self concept was a list of 22 trait descriptive adjectives. The subject was instructed to indicate how each of these traits was characteristic of himself or herself. A negative relationship between self concept and anxiety was obtained.

The Self Esteem Inventory was used in Coopersmith's study.[29] It consists of items involving the subject's perceptions in four areas: peers, parents, school and self. An index of self-esteem score was obtained from the subject's responses to each item as "like me" or "unlike me." Children

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[28] L. P. Lipsitt, "A self concept scale for children and its relationship to the children's form of the Manifest Anxiety Scale," Child Development, 1958, 29, 463-472.

[29] Coopersmith, loc. cit.

with high self esteem were significantly less anxious than those with low self esteem.

Both studies dealt with the perceived-self aspect of the self structure. The results indicated agreement that a negative relationship exists between the perceived self and anxiety. However, evidence contrary to these results was provided by Taylor and Combs.[30] They found that those children who tended to accept damaging statements about themselves were those with the highest adjustment scores as measured by the California Test of Personality.

The problem seems to be that the desirability of traits on both of the first two studies were predetermined by the investigators. It is not likely that the subjects would agree as to the degree of desirability of each trait. The index of self concept as derived from a sum of the subject's responses to individual items may not be an accurate estimation of his self concept as viewed by the subject himself. Moreover, this approach is quite inconsistent with the basic emphasis of self theory since subject's viewpoint is not given adequate consideration.

Studies of the Relationship of Self Acceptance to Anxiety

Bills et al., in the design of their Index of Adjustment and Values, made an attempt to apply self theory by

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[30] C. Taylor and A. W. Combs, "Self acceptance and adjustment," Journal of Consulting Psychology, 1952, 16, 89-91.

trying to obtain the individual's feeling regarding his perceived self.[31] Their index includes a self acceptance measure. The subjects were asked, "how do you feel about being this way" after they had answered the question "how often are you this sort of person?" They were instructed to respond on a scale with a "very much like" to "very much dislike" continuum. The self acceptance score became the subject's evaluation of his perceived self.

The main problem of Bills Index seems to lie in the "very much like" to "very much dislike" scale. A self evaluation is not necessarily an indication of a person's self acceptance. As stated by McCandless, ". . . there is a very real difference between the person who sees himself as being not perfect, yet manages to live comfortably with himself as he is; and the person who tortures himself with inferiority feelings and self-doubts."[32] A self evaluation of the perceived self would enable us to find the person who sees himself as not perfect, but not to distinguish the two types of persons suggested by McCandless. In fact,

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[31] R. E. Bills, E. L. Vance, and O. S. McLean, "An Index of Adjustment and Values," Journal of Consulting Psychology, 1951, 15, 257-261; R. E. Bills, Index of Adjustment and Values, Manual, Auburn, Alabama: Alabama Polytechnic Institute, Mimeographed, undated.

[32] B. R. McCandless, Children and Adolescents, New York: Holt, Rinehart, Winston, 1961, p. 191.

Bills found a correlation of .90 between the perceived self and his self acceptance scores. This may be interpreted to mean that those with high self concept tend to rate themselves higher than those with low self concept. On the other hand, the correlation may simply indicate that the construct validity of Bills Index is questionable.

Another score Bills used as an index of self acceptance was the discrepancy between the perceived and the ideal self. The rationale was that discontent with self would be shown through the discrepancy score. Discontent with self is generally believed to be related to a person's emotional state. If this is true, there should be a relationship between an individual's anxiety score and the discrepancy score. Numerous studies have been done based upon such rationale. We shall examine some of the pertinent ones and then see whether the rationale is sound.

Though not directly attacking the relationship between anxiety and the discrepancy score, Hanlon's, et al. highly significant .70 correlation between total adjustment and discrepancy scores supports strongly the hypothesis that the discrepancy score is an indicator of adjustment.[33]

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[33] T. E. Hanlon, P. R. Hofstaetter, and J. B. O'Connor, "Congruence of self and ideal self in relation to personality adjustment," Journal of Consulting Psychology, 1954, 18, 215-218.

Along this line, children with low self-ideal discrepancy scores were found less anxious on the Children's Form of Manifest Anxiety Scale.[34] The children with high perceived self-ideal discrepancy scores were rated by observers as being significantly less secure.. Further evidence supports the claim that positive relationships between anxiety and the discrepancy scores exist not only among children but also in a group of college students.[35] The correlation of the discrepancy scores of 100 college freshmen and sophomore women on the Bills Index of Adjustment and Values and Taylor's Manifest Anxiety Scale was found to be .41.

Yet there are findings which are not consistent with those just reported. Zimmer's and Grigg's studies did not substantiate the hypothesis that discrepancy score is an indicator of an individual's conflict or emotionality.[36] In addition, Bledsoe and Garrison found no significant

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[34] P. Bruce, "Relationship of self-acceptance to other variables with sixth-grade children oriented in self-understanding," Journal of Educational Psychology, 1958, 49, 229-238.

[35] J. V. Mitchell, Jr., "Goal-setting behavior as a function of self-acceptance, over- and under-achievement, and related personality variables," Journal of Educational Psychology, 1959, 50, 93-104.

[36] H. Zimmer, "Self-acceptance and its relation to conflict," Journal of Consulting Psychology, 1954, 18, 447-449; A. G. Grigg, "A validity test of self-ideal discrepancy," Journal of Clinical Psychology, 1959, 15, 311-313.

relationship between the discrepancy score and the anxiety score.[37] Adopting Bills Index of Adjustment and Values and the Children's Form of Manifest Anxiety Scale, they found a correlation near zero for the fourth grade boys (.075) and girls (-.034) but -.357 and -.206 for the sixth grade boys and girls respectively.

The various results reported do not enable us to draw a firm conclusion as to the relationship between the self-ideal discrepancy score and adjustment, conflict, emotionality, or anxiety. The basic rationale of these studies in taking the discrepancy between the perceived self and the ideal self as an index for the particular individual's self content or discontent is questionable. Whether human beings generally judge themselves according to an ideal self is debatable. There are undoubtedly people who do take their ideal self as a standard to attain. On the other hand, there are also people who do not take their ideal self as the goal to be attained. Combs and Snygg have similar views:

> . . . The self ideal is nearly always a kind of report of what we might like to be which provide for the examination of persons who have asked us about the matter. It is rare, however, that the self ideal has any very great dynamic effect in motivating the behavior of individuals. . . . Perceptions and behavior . . . are immediate, whereas the kinds of self ideals we are encouraged to adopt are probably far

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[37] Bledsoe and Garrison, op. cit., p. 34.

> removed from our present state in both time and quality. There is certainly nothing wrong with having lofty and distant goals for oneself, but unless such distant ends can be converted into more immediate and achieveable goals they will have little or no effect upon the individual.[38]

If this argument is valid and if we want to know how a person feels about himself, we should better determine what kind of goal a person would like to attain rather than his ideal self.

An Alternate Hypothesis

The rationale for the studies of the discrepancy between the perceived self and the ideal self is based on balance theory. Human beings have a tendency to strive toward internal consistency. Festinger in his studies of cognitive dissonance supplied support for this tendency. Heider clarified this theory by an exploration of the conditions of the state of balance. He stated,

> . . . a state of harmony or balance exists if entities which belong together are all positive, or if they are all negative. If two closely related entities are of different sign, a state of disharmony or tension results which can be resolved in different ways.[39]

However, the existence of internal inconsistency does not necessarily cause the arousal of discomfort. The factors involved were analyzed by Festinger.

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[38]Combs and Snygg, op. cit., p. 361.

[39]Fritz Heider, The Psychology of Interpersonal Relations, New York: John Wiley and Sons, Inc., 1959, p. 217.

> If two elements are dissonant with one another, the magnitude of the dissonance will be a function of the importance of the elements. The more these elements are important to or valued by, the person, the greater will be the magnitude of a dissonant relation between them.40

Brehm and Cohen further clarified this point. They declared,

> . . . the amount of dissonance associated with a given cognition is a function of the importance of that cognition and the one with which it is dissonant. The magnitude of dissonance is also a function of the ratio of dissonant to consonant cognitions, where each cognitive element is weighted for its importance to the person. As the number and/or importance of dissonant cognitions increases, relative to the number and/or importance of consonant cognitions, the magnitude of dissonance increases.41

Their theories and research findings point out an essential element that must be considered in studies of the consistency within a person's self structure--the significance to be given to various aspects of the self structure. As discussed in the preceding section, the personal meaning and the effect of ideal self may not be as important as assumed by many researchers. In fact, some researchers have pointed out disadvantages in using the ideal self as a criterion of judgment. Cowen and Tongas, in a study of ideal self ratings and social desirability values, found a

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[40]Leon Festinger, A Theory of Cognitive Dissonance, White Plains, New York: Row, Peterson and Co., 1957, p. 16.

[41]Jack W. Brehm and Arthur R. Cohen, Explorations in Cognitive Dissonance, New York: Wiley, 1962, p. 4.

correlation of .958 between the two.[42] That is, subjects tended to assign socially desirable characteristics to their ideal self. Rapaport obtained a smaller inter-subject variability on ideal self than on real self for ten out of twelve MMPI scales.[43] The results suggest that a social norm rather than an individual's own standards is reflected by the ideal self. Unless the social norm is accepted by an individual and internalized, it would not have much effect in shaping an individual's behavior.

In the present study, the ideal self will be used only as a reference point rather than as a main variable. But the discrepancy among three aspects of the self structure will still be taken to derive an index of inconsistency.

In this study, in addition to the perceived and ideal self, an assessment of each subject's "reasonably satisfactory" self was attempted. Previous researchers have approached the problem of self satisfaction. Moderately small discrepancies between the perceived and the ideal self were taken as manifesting optimum self satisfaction. Butler and Haigh used the size of the perceived-ideal self

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[42] E. L. Cowen and P. N. Tongas, "The social desirability of trait descriptive terms: applications to a self-concept inventory," Journal of Consulting Psychology, 1959, 23, 361-365.

[43] G. M. Rapaport, "'Ideal self' instruction, MMPI profile changes and the prediction of clinical improvement," Journal of Consulting Psychology, 1958, 22, 459-463.

correlation as a self-satisfaction index.[44] Their self satisfaction index was then an inference obtained by the comparison of the perceived self to the ideal self. While the phenomenological psychologists stress the individual's own view, a direct approach rather than an inference for assessing the subject's self satisfaction seems to be more adherent to the theory. The introduction of "reasonably satisfactory" aspect was intended for such a direct approach. When this aspect is compared with the perceived and the ideal aspects, whether an individual has a positive or a negative view of himself can be detected.

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[44]John M. Butler and Gerard V. Haigh, "Changes in the relation between self concepts and ideal concepts consequent upon client-centered counseling," in C. R. Rogers and R. F. Dymond (eds.) Psychotherapy and Personality Change, Chicago: University of Chicago Press, 1954, pp. 55-75.

CHAPTER III

DESIGN AND METHODOLOGY

Instrumentation

The Children's Form of the Manifest Anxiety Scale was used to measure the subject's level of anxiety and a revised form of Bills Index of Adjustment and Values to study three aspects of the self structure.

In 1951, Janet Taylor developed the Taylor Manifest Anxiety Scale.[45] Evidence of its validity was indicated by numerous investigators.[46] Castaneda, McCandless and Palermo adapted Taylor's Scale for children in fourth, fifth, and sixth grade levels.[47] The original items were modified

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[45] Taylor, loc cit., 1951; Taylor, loc cit., 1953.

[46] A. H. Buss, M. Wiener, A. Burkee, and N. Blair, "The measurement of anxiety in clinical situation," Journal of Consulting Psychology, 1955, 19, 125-129; G. A. Ulett, G. Gleser, G. Winokur, and A. Lawler, "Psychiatric screening of flying personnel," in J. Taylor, "Drive theory and manifest anxiety," Psychological Bulletin, 1956, 53, 303-320; A. W. Siegman, "Cognitive, affective and psychological correlates of the Taylor Manifest Anxiety Scale," Journal of Consulting Psychology, 1956, 20, 137-141; D. P. Hoyt, and T. M. Magoon, "A validation study of the Taylor Manifest Anxiety Scale," Journal of Clinical Psychology, 1954, 10, 357-361; and E. Kendall, "The validity of Taylor's Manifest Anxiety Scale," Journal of Consulting Psychology, 1954, 18, 429-432.

[47] Castaneda, McCandless and Palermo, loc. cit., 1956.

for comprehensibility. Elementary school officials were asked for critical comments concerning the comprehensibility of the items. A pilot study was done among 60 children. After revision, the test was administered by teachers to 361 children in four different schools. The present form consists of an anxiety scale of 42 items and a lie scale of 11 items.

The reliability of the Children's Form of the Manifest Anxiety Scale has been estimated by both test-retest correlations and split-half methods. Correlations of .90 for the anxiety scale and .70 for the lie scale were found by Castaneda et al. with the test-retest technique over a period of one week.[48] The children's position in the group tended to remain constant over a one month period in a group of fourth, fifth, and sixth grade children.[49] A split-half reliability of .78 for the anxiety scale was found by Trent in a group of institutionalized delinquents including Negroes, whites and those of Puerto Rican extraction, suggesting internal consistency within the set of items.[50]

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[48] Ibid., p. 322.

[49] D. S. Palermo, "Racial comparisons and additional normative data on Children's Manifest Anxiety Scale," Child Development, 1959, 30, 53-56, p. 56.

[50] R. Trent, "The relation of anxiety to popularity and rejection among institutionalized delinquent boys," Child Development, 1957, 28, 379-383, p. 380.

Studies indicated that subjects with high anxiety scores on the Children's Manifest Anxiety Scale had more difficulty with complex learning than those with low anxiety scores, while the former were superior to the latter on simple learning tasks.[51] These results gave evidence for the construct validity of the scale.

Evidence of concurrent validity was supplied by Sarason et al.[52] They noted a relationship between Children's Manifest Anxiety scores and the two scales--a Test Anxiety Scale and a General Anxiety Scale--developed by the testers. Sarason suggested that children selected on the basis of any of the tests are not likely to be different from children selected on the basis of any other test.

In the present study, the level of the subject's manifest anxiety was scored as recommended by the test authors. That is, each item in the subscale of anxiety counted as one point when the subject answered, "yes." Since there were 42 items in this subscale, the subject's score could fall within the range of zero to 42. However, the actual ranges for the sample of the present study were from

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[51] Castaneda, Palermo, and McCandless, loc cit.; and D. S. Palermo, A. Castaneda, and B. R. McCandless, "The relationship of anxiety in children to performance in a complex learning task," Child Development, 1956, 27, 333-337.

[52] S. B. Sarason, K. S. Davidson, F. Lighthall, R. R. Waite, and B. K. Ruebush, Anxiety in Elementary School Children, New York: John Wiley and Sons, 1960, p. 184.

3 to 33 for the boys and from 1 to 33 for the girls.

Of the eleven items of the lie scale, each, except items 10 and 49, counted as one point when the subject responded with "yes." If an individual had a high lie score, the reliability and the validity of the responses were questionable. For this study, a lie score of 5 or above was arbitrarily taken as high and students obtaining such score were eliminated from the data analysis.

Bills Index of Adjustment and Values was originally developed with a frame of reference in phenomenological psychology.[53] The Index consists of 49 trait adjectives. Each of these is rated three times on a five-point scale. The subjects are asked to respond to the following three different questions: (1) How often are you this sort of person? (2) How do you feel about being this way? (3) How much of the time would you like this trait to be characteristic of you? Four kinds of indices may be derived from the responses. They are: (1) the perceived self score, the sum of the responses to the first question; (2) the self acceptance score, the sum of the responses to the second question; (3) the ideal self score, the sum of the responses to the third question; and (4) the discrepancy score, the sum of discrepancies between the rating of the perceived

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[53] Bills, Vance, and McLean, loc. cit.

self and that of the ideal self.[54] Based on the underlying theory, it is assumed that the higher the perceived self score or the self acceptance score, the better adjusted is the individual. The discrepancy measure is taken as an index of conflict or emotionality; the lower the score, the better adjusted the individual is considered to be.

In a group of 237 college students, an odd-even reliability coefficient of .91 was obtained for the self acceptance score, and .88 for the discrepancy score.[55] The test-retest reliability coefficients of the same group of the subjects over a period of six weeks were .83 and .87 respectively for the two measures reported above.[56]

Four studies of validity were reported which indicate that the Index is a reasonably valid measure of adjustment and values.

In a study of 20 female college students who were first given the Index and then a Rorschach examination, the results showed that the mean of the acceptance of self scores appears to be able to divide neurotic and psychotic group as diagnosed by the Rorschach.[57]

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[54] Bills, op. cit.

[55] Bills, Vance, and McLean, loc. cit., p. 259.

[56] Ibid., p. 259.

[57] Ibid., p. 260.

In the direction of the underlying theory, another study of student-centered teaching was carried out. It was hypothesized that the application of client-centered therapy methods to the classroom in the form of student-centered teaching techniques would be reflected in the scores made on a test-retest. The results supported the hypothesis.[58]

In the investigation of the difference among subjects who tend to be ready to blame themselves for their unhappiness in life and those who tend to be ready to blame other people and factors outside themselves for their unhappiness, the self acceptance score reflected the distinction.[59]

Roberts, by comparing responses on the Index to a measure of emotionality as obtained from a free association test, found that the self-rating of the Index provided valid indices of emotionality.[60] Reaction time was reported to be significantly longer for trait words concerning which the subjects indicated discrepancy between concept of self and concept of the ideal self.

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[58] Ibid.

[59] Ibid.

[60] G. E. Roberts, "A study of the validity of the Index of Adjustment and Values," Journal of Consulting Psychology, 1952, 16, 302-304.

Bills used the sum of the subject's responses to the items on the scale as the basic technique for obtaining indices for the four measures of self. Problems can be seen in such a scoring system. A five-point rating scale is provided for the subject to choose his or her answer for each item. Individual views concerning a certain item may be accurately represented. But a total of these ratings for each measure cannot give an accurate picture of the subject's view of himself because a low rating does not necessarily mean a negative view toward the perceived self just as a high rating does not guarantee a positive view.

Another problem involves the discrepancy score. This score is derived from the discrepancies between the responses to the perceived and the ideal self. The phenomenon of the clustering of the ideal self responses on the favorable end of the scale does not allow for much variation. As indicated in Bills' Manual, the correlation between the perceived self scores and the discrepancy scores is .83.[61] The information derived from the discrepancy scores can almost be represented by the single score of the perceived self. Furthermore, a discrepancy score of "2" may come from the rating of 1 and 3 or 3 and 5. The absolute value of "2" for each of these two examples does not

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[61] Bills, loc. cit.

necessarily represent the same psychological distance within the individual.

A revised form of Bills Index of Adjustment and Values, as shown in the Appendix A, was used in this investigation for assessing the perceived, the "reasonably satisfactory" and the ideal aspects of the self structure. Nine of Bills trait adjectives were removed because of their difficulty for ninth graders. As the revised test was designed, the subjects were asked to enter their responses for the perceived self in the first column, the ideal self in the second column, and the "reasonably satisfactory" self in the third. The self acceptance column from the original Bills Index was dropped from the present form. Once the subject had his perceived and the ideal self concepts down on the paper, the responses for the "reasonably satisfactory" self become a kind of psychological choice. It was a choice between whether the subject felt reasonably satisfied with his present self or whether he would not feel satisfied unless he approached what he would ideally like to be.

The new approach of the present study of self structure, and the limitations of Bills' scoring system, necessitated the development of a new scoring system.

A seven point scale was provided for the subject's responses. The scale points ranged from "one," for "never," to "seven," for "always." With the "reasonably satisfactory" self aspect as the main variable of interest and the perceived self and the ideal self as two reference points, the subject's

responses for the three aspects of the self structure might fall into any one of the following six possible patterns.

Let "P" represent the response for the perceived self;

"I" represent the response for the ideal self; and

"S" represent the response for the "reasonably satisfactory" self,

the six possible patterns for the subject's responses to an item, then are:

1. $S = P \gtrless I$
2. $|S - P| < |S - I|$
3. $S = I \gtrless P$
4. $|S - I| < |S - P|$
5. $|S - I| = |S - P|$
6. $S = P = I$

For pattern one, what the subject indicates is that, on a given item, no matter what is his ideal self, he feels reasonably satisfied with his present self. In pattern two, the subject indicates that none of the three aspects of his self is the same, yet his "reasonably satisfactory" self is more similar to the perceived self rather than to the ideal self. In other words, he does not feel his present self as far from satisfactory. Both the first two patterns let us infer that the individual has a positive view of his perceived self.

On the other hand, pattern three shows a person who, on a given item, responds that his "reasonably satisfactory"

self is the same as his ideal self no matter what his perceived self is. Thus, his minimum degree of being satisfied with himself is the same as the maximum. Psychologically, this "reasonably satisfactory" self is removed from the perceived self. Pattern four indicates that the individual's "reasonably satisfactory" self is similar to the ideal self rather than the perceived self. Both of these two patterns permit the inference that the individual does not feel satisfied with his perceived self. In such case, a negative view of his perceived self is reflected.

The pattern five responses show that on a given item the "reasonably satisfactory" self differs from the perceived self as much as it differs from the ideal self. It is difficult to judge whether or not this person feels a certain degree of satisfaction with his present self. Similarly, pattern six causes the same kind of difficulty in interpretation. When a person states that his perceived self is the same as his "reasonably satisfactory" self as well as his ideal self, it may be taken as an indication that he is completely satisfied with himself. However, if a human being is constantly striving for self-enhancement, it does not seem possible that a person would think that he has attained the utmost level of achievement. Responses falling into these patterns are too vague for a psychological interpretation.

The revised form of the Bills Index of Adjustment and Values consists of 40 items. For each item, there are six possible patterns of responses for the three aspects of the self structure. When the responses to the item fell in the first two patterns, the item was assigned a "+1" suggesting a positive assessment of the perceived self; when the responses of the item fell in the third and the fourth patterns, the item was assigned a "-1." A zero was assigned if the responses to an item fell in either of the last two patterns. The differences between the sum of the positive scores and the sum of the negative scores was taken as the index for the individual's discrepancy score.

Here the discrepancy score is not the sum of the differences between the perceived self and the ideal self. It is rather the number of traits concerning which the individual makes a positive evaluation of his perceived self compared to the number of traits on which he does not feel quite satisfied.

Since there are 40 items in the revised form of the Index, the subject's discrepancy score might fall within the range of "-40" to "+40." In the present investigation, the variability among the subjects was not as large. The actual discrepancy scores ranged from "-31" to "+33" for boys and "-35" to "+30" for girls.

Procedures

A total of 118 ninth grade boys and 129 ninth grade girls took the two tests. Among them, 69 boys and 82 girls were the total population of ninth graders at Kenowa Hills High School, Grand Rapids, Michigan; the rest were from Pattengill Junior High, Lansing, Michigan. Because eight boys and three girls skipped one or more items in their responses and 25 girls and 10 boys had a lie score of 5 or above on the measure of anxiety, their data were excluded from analysis. The distribution of the remaining sample is presented in the following table.

Table 1.--Distribution of the sample by sexes and schools

School	No. of boys	No. of girls	Total
Kenowa Hills	58	69	127
Pattengill	42	32	74
Total	100	101	201

In order to standardize the administration of the tests, a sheet containing special explanations and directions was prepared. A male examiner, rather than the subjects' teachers, and the present investigator were present to give the tests. Arrangements were made so that subjects from the same school had the tests at the same time and in the

same room. Instructions for the tests were read to the subjects by the male examiner to assure that they responded in the directed way. To encourage sincere responses, the subjects were informed that there were no right or wrong answers and that their responses would not have anything to do with their grades at school; and, in fact, only the investigator would read their responses.

The two tests were handed out together, with the revised Bills Index of Adjustment and Values on the top of the Children's Manifest Anxiety Scale. Instructions were given in detail so that every subject completed the revised Bills Index of Adjustment and Values first. They were instructed that they might rest a few minutes or go ahead with the second test after they completed the first one. Since it took only about fifty minutes for all the subjects to complete the two tests, and about half of them took only forty minutes, most of the pupils did not feel the need of rest in between. It may be assumed that there was scarcely any fatigue involved. The subjects were allowed to raise questions privately, but discussion among the students was discouraged.

Hypotheses to be Tested

1. Those subjects with positive discrepancy scores will have a lower mean anxiety score than those with negative discrepancy scores.

2. Those subjects with high positive discrepancy scores will have a lower mean anxiety score than those with low postive discrepancy scores.

3. Those subjects with high negative discrepancy scores will have a higher mean anxiety score than those with low negative discrepancy scores.

4. Those subjects with extremely high positive discrepancy scores will have a lower mean anxiety score than those with extremely high negative discrepancy scores.

CHAPTER IV

ANALYSIS OF DATA

The Ability to Differentiate Aspects of Self

As this was a study of three aspects of the self structure, it was important to make sure that the three were differentiated by the subjects. Since individuals have a tendency to strive for self-actualization, they are motivated to improve. In that case, one should not expect to find many individuals indicating that all the three aspects of their self structures are the same as described by various trait descriptive adjectives.

When the responses to the three aspects of the self structure are the same, the phenomenon may be explained by three possibilities. The individual may think that he has attained the level he would ideally like to be at. This is possible for a number of traits. But if the individual's responses to the three aspects of the self structure are the same for many traits, the other two possibilities are more likely explanations. The individual may not be aware that differences among the three aspects of the self structure are socially acceptable. An identical response on the three measures then might be the reflection of his defense against the revelation of his real self. The last possibility

is that the individual's ability to differentiate may not be quite well developed; he may not be capable of distinguishing differences among the three aspects of his self structure.

The ninth graders in this study were capable of differentiating the three aspects of self structure. The revised form of Bills Index of Adjustment and Values contains 40 items. Each subject could have given identical responses on up to 40 items. The actual spread ranged from zero to twenty-four for girls and zero to thirty for boys. The distribution is presented in Table 2.

From the distribution, one may see that there were only four per cent of the boys having more than half of the total items with an identical response to all three aspects of self structure; and for girls, three per cent. On the other hand, of the forty items, more than two-thirds of the subjects had less than nine items with the identical responses. Thus, most of the children appeared able to differentiate the perceived self, the ideal self, and the "reasonably satisfactory" self.

Results on the Children's Form of the Manifest Anxiety Scale

Two kinds of scores were derived from the Children's Form of the Manifest Anxiety Scale. They were the Lie score and the Anxiety score. Excluding the data of those subjects

Table 2.--Number and percentage of subjects giving identical responses to the three aspects of self structure measured by the revised Bills Index of Adjustment and Values

No. of items	Boys		Girls	
	No. of subjects	Cumulative percentage	No. of subjects	Cumulative percentage
30-32	2	2.0		
27-29	0	2.0		
24-26	2	4.0	1	1.0
21-23	0	4.0	2	3.0
18-20	1	5.0	2	5.0
15-17	2	7.0	1	6.0
12-14	3	10.0	10	15.9
9-11	7	17.0	7	22.8
6-8	20	37.0	16	38.6
3-5	26	63.0	27	65.3
0-2	37	100.0	35	99.9
Total	100		101	

who skipped items and those who had a lie score of 5 or above, the means and standard deviations of the lie and anxiety scores are reported in Table 3.

In general, girls scored significantly higher than the boys on the anxiety scale ($t = 3.59$) and the differences between schools was not significant. The low lie scores suggest that the responses were not falsified.

Table 3.--Means and standard deviations for anxiety and lie scores by sexes and schools

	No. of subjects	Anxiety Score M	Anxiety Score S.D.	Lie Score M	Lie Score S.D.
Boys					
Pattengill	42	16.02	6.86	1.83	1.03
Kenowa Hills	58	16.52	5.98	1.62	1.28
Total	100	16.31	6.34	1.71	1.33
Girls					
Pattengill	32	20.56	6.58	1.59	1.52
Kenowa Hills	69	20.07	7.22	1.45	1.30
Total	101	20.23	6.99	1.49	1.37

Results on the Revised Form of Bills Index of Adjustment and Values

As described in the section on the scoring system in the preceding chapter, the discrepancy score of each subject is the difference between the number of personal traits on which a subject has a positive concept regarding the perceived self as compared to the number of traits on which he does not feel quite satisfied with his perceived self (p. 39). A subject's discrepancy score, theoretically, may fall within the range of "-40" to "+40." The actual discrepancy scores ranged from "-31" to "+33" for boys and

"-35" to "+30" for girls. Means and standard deviations of the discrepancy scores were M = 3.84, S.D. = 14.01 for boys; and M = 1.17, S.D. = 14.55 for girls respectively. A comparison of the mean difference between the boys and the girls by "t" test found some evidence (t = 1.32) that the boys had higher mean discrepancy score than the girls. For the convenience of analysis, a summary of the discrepancy scores will be presented separately for those with positive scores and those with negative scores. Those with a score of zero were included in the positive group. The data are presented in Table 4.

Table 4.--Means and standard deviations of children with positive and negative discrepancy scores by sexes and schools

	Postive discrepancy group			Negative discrepancy group		
	N	M	S.D.	N	M	S.D.
Boys						
Pattengill	26	12.69	8.69	16	-11.63	9.12
Kenowa Hills	36	12.72	8.52	22	- 9.91	6.49
Total	62	12.71	8.52	38	-10.63	7.64
Girls						
Pattengill	14	12.21	7.49	18	-15.28	9.01
Kenowa Hills	44	10.95	8.70	25	-10.52	8.47
Total	58	11.26	8.27	43	-12.51	8.92

As shown in Table 4, there was a considerable difference between the means of the negative discrepancy scores for girls from the Pattengill and the Kenowa Schools. But the mean anxiety scores, the mean positive discrepancy scores and the mean negative discrepancy scores for boys were quite similar for the subjects from the two schools. On the other hand, a significant difference ($t = 3.59$) of mean anxiety scores was found between boys and girls. Due to these phenomena, the data for boys and those for girls were analyzed separately but those for the subjects from the two schools were combined during analysis.

Tests of Hypotheses

The first hypothesis stated that the group of subjects with positive discrepancy scores would have a lower mean anxiety score than those with negative discrepancy scores. A "t" test was used to test this unidirectional hypothesis. The results of the analysis are presented in Table 5.

The "t" value of .29 for the boys was not large enough to permit acceptance of the hypothesis. That is, the slight difference in the direction of the hypothesis was not sufficient to be accepted as reliable evidence of the existence of a real difference. However, the "t" value of 1.69 for the girl sample was statistically significant.

Table 5.--A comparison of the mean anxiety scores of subjects with positive and those with negative discrepancy scores

	Positive discrepancy group		Negative discrepancy group			
	N	M anxiety score	N	M anxiety score	s.e.	t
Boys	62	16.18	38	16.53	1.17	.29
Girls	58	19.22	43	21.58	1.39	1.69*

*P < .05, one-tail test

The following two hypotheses were introduced in order to supply evidence that a negative relationship existed between the anxiety scores and the positive discrepancy scores as well as the negative discrepancy scores. That is, the mean anxiety score of the high positive discrepancy group should be lower than that of the low positive discrepancy group, while the high negative discrepancy group should have a higher mean anxiety score than the low negative discrepancy group.

The second hypothesis stated that those subjects with high positive discrepancy scores would have a lower mean anxiety score than those with low positive discrepancy scores. Here, the high and the low positive discrepancy scores were classified by whether the subject's score fell above or below the mean of overall positive discrepancy scores. The results are reported in Table 6.

Table 6.--A comparison of the mean anxiety scores of subjects with high and those with low positive discrepancy scores

	Subjects with high positive discrepancy scores		Subjects with low positive discrepancy scores			
	N	M anxiety score	N	M anxiety score	s.e.	t
Boys	26	15.65	36	16.44	1.62	.49
Girls	26	18.15	32	20.09	1.72	1.13

A "t" test found that the difference between the mean anxiety scores of the high and the low positive discrepancy groups for neither boys nor girls was large enough to be statistically significant. However, for both the boy and the girl samples, the mean anxiety scores of the low positive discrepancy groups were higher than those of the high positive discrepancy groups. This difference was in the predicted direction but not reliably so.

The third hypothesis stated that those subjects with high negative discrepancy scores would have a higher mean anxiety score than those with low negative discrepancy scores. Here, the high and the low negative discrepancy scores were classified by whether the subject's score fell above or below the mean negative discrepancy score. Again, a "t" test was used to see if there was a reliable difference between the mean anxiety scores of these two groups. The results are presented in Table 7.

Table 7.--A comparison of the mean anxiety scores of subjects with high and those with low negative discrepancy scores

	Subjects with high negative discrepancy scores		Subjects with low negative discrepancy scores			
	N	M anxiety score	N	M anxiety score	s.e.	t
Boys	17	18.76	21	14.71	2.15	1.88*
Girls	19	21.53	24	21.63	2.30	

*$P < .05$, one-tail test

The "t" value for the boy sample supported the hypothesis at .05 level of confidence. The difference of the mean anxiety scores of the high and the low negative discrepancy groups of boys was statistically significant in the predicted direction. The mean anxiety score of the high negative discrepancy group was higher than that of the low negative discrepancy group. The data for girls were opposite to the predicted direction and no test was required.

The difference of mean anxiety scores between the boys with high and low negative discrepancy scores was the only significant one among the mean differences tested by the second and the third hypotheses. With the exception of the high and the low negative discrepancy girl groups, the differences of mean anxiety scores were in the predicted direction. This supplied some evidence that there was a

negative relationship between the anxiety scores and the positive as well as the negative discrepancy scores.

The fourth hypothesis stated that subjects with extremely high positive discrepancy scores would have lower mean anxiety score than those with extremely high negative ones. This is a test of difference between the extreme groups. The extremely high positive discrepancy group here included those whose discrepancy scores were one standard deviation (14.01 for boys and 14.55 for girls) or more above overall means of 3.84 for boys and 1.13 for girls. The high negative discrepancy group consisted of those whose scores were one standard deviation or more below the overall mean. A unidirectional "t" test was again used to test this hypothesis. The results are presented in Table 8. Some support for the hypothesis was provided.

Table 8.--A comparison of the mean anxiety scores of subjects with extremely high positive and those with extremely high negative discrepancy scores

	Ss with high positive discrepancy scores		Ss with high negative discrepancy scores			
	N	M anxiety score	N	M anxiety score	s.e.	t
Boys	18	14.55	15	18.53	2.45	1.62*
Girls	17	17.76	18	21.33	2.38	1.50*

*P $<$ .10, one-tail test

CHAPTER V

SUMMARY AND INTERPRETATIONS

Summary

This study dealt with the investigation of the "reasonably satisfactory" self as an essential aspect of an individual's self structure. Specifically, it was hypothesized that the differences in the relationship among the perceived self, the "reasonably satisfactory" self, and the ideal self aspects of the self structure would be associated with an individual's anxiety level. The main purpose of this study was to contribute further evidence to self theory and call the attention of educators to the importance of a "reasonably satisfactory" aspect of the self structure. Self structure was defined as the organized totality of an individual's perceptions of himself. It is composed of various aspects of the person as a unique individual. While each of these aspects of the self structure has its effect on the individual's emotional status and behavior, the personal meaning of the aspect as it appears to each individual determines the strength of its effect.

Specifically, the following hypotheses were tested.

1. Subjects with positive discrepancy scores will have a lower mean anxiety score than those with negative discrepancy scores.

2. Subjects with high positive discrepancy scores will have a lower mean anxiety score than those with low positive discrepancy scores.

3. Subjects with high negative discrepancy scores will have a higher mean anxiety score than those with low negative discrepancy scores.

4. Subjects with extremely high positive discrepancy scores will have a lower mean anxiety score than those with extremely high negative discrepancy scores.

A revised form of Bills Index of Adjustment and Values and the Children's form of the Manifest Anxiety Scale were used to obtain the data regarding the subject's three aspects of self structure and his level of anxiety and to provide the discrepancy scores of the hypotheses. They were administered to 247 ninth grade boys and girls. A new scoring system for the revised Bills Index of Adjustment and Values was developed for the purpose of the present study. The "reasonably satisfactory" aspect of the self structure was taken as the main variable with the perceived self and the ideal self as two reference points. This contrasts with past practice in which "discrepancy" was defined on the basis of differences in perceived and ideal self scores.

Two subsidiary findings were discovered. The girls' mean anxiety score was found significantly higher than the boys'. This may be an evidence that girls in general have

a higher anxiety level than boys. This may also be a reflection of girls' willingness to admit their anxiety because it is socially acceptable for them to do so. Twenty-five girls versus 10 boys had a lie score of 5 or above, and this does not seem to support the second explanation. The higher degree of the girls' willingness to admit their anxiety than the boys' seems to be questionable. On the other hand, if there is really a negative relationship between a subject's anxiety score and his or her discrepancy score, the finding of a higher mean discrepancy score of +3.84 for boys as compared to +1.17 for girls seems to support the first explanation that girls do have a higher anxiety level than boys.

The second subsidiary finding was that most of the ninth graders could differentiate among the perceived self, the "reasonably satisfactory" self, and the ideal self. This finding supplied evidence that the "reasonably satisfactory" aspect was distinct from the other aspects of the self structure. This justified the study of the interrelationship among the three aspects of the self structure.

The main results of this study were:

1. Subjects with positive discrepancy scores tended to have a lower level of anxiety than those with negative discrepancy scores.

2. Subjects with high positive discrepancy scores tended to have a lower level of anxiety than those with low

positive discrepancy scores. While boys with high negative discrepancy scores had a higher level of anxiety than those with low negative discrepancy scores, no difference was found between the girls with high and with low negative discrepancy scores.

3. The anxiety level of the subjects with extremely high positive discrepancy scores as a group was found to be lower than that of those with extremely high negative discrepancy scores.

Interpretations

No evidence from the findings of this study was found to reject the rationale of this study. The results indicated the existence of a negative relationship between a subject's anxiety score and his discrepancy score. The subject tended to have a lower anxiety score if his "reasonably satisfactory" self on many traits was similar to his perceived self. This may be regarded as an indication that people who are satisfied with their present self are less anxious than those who do not feel satisfied with themselves unless they approach their ideal. It may also indicate that those who set their goals not much higher than their present status feel less threatened and therefore have lower anxiety level than those who set their goals too high.

The importance of the "reasonably satisfactory" aspect as an internal criterion of a person's feeling toward

the perceived self was confirmed, though weakly, by the negative relationship between anxiety and the degree to which a person feels reasonably satisfied with his present self. In education, external criteria have been used to measure the student's level of achievement. Cases have been found where students are sometimes indifferent toward adults' criticism or judgment. The knowledge of the existence of the "reasonably satisfactory" aspect of the self structure as an internal criterion may explain such apathetic attitudes. An examination of the "reasonably satisfactory" self may serve as a key to discover if a child needs encouragement and/or special guidance.

Moreover, past studies have found that anxiety has either a facilitating or an interfering effect on human performance or handling problems. As a variable negatively related to individual's level of anxiety, a person's feeling toward his perceived self may help to raise or lower his anxiety level as to inducing a desirable effect. In education, the student may be encouraged and helped to set his immediate goal at a reasonably appropriate level so that the effect of anxiety may be at its facilitating stage.

While all but one of the comparisons were in the predicted direction, statistically significant differences were not always detected for these data. The following may be some of the possible reasons for the lack of stronger support for the hypotheses.

In this study whether a person had a positive or a negative view toward his perceived self on a certain trait was assessed according to the individual's own criterion. But among the forty traits on the revised Bills Index of Adjustment and Values, all traits were given the same weight. The number of traits on which an individual had positive or negative views--using his perceived and ideal self assessments as reference points--was used to derive the discrepancy scores. But the relative importance of each trait as it appeared to the individual was not measured. It was therefore possible for an individual to score negatively toward himself on only a few traits; but these few may have been more important to the individual than the many traits which added to give him a positive discrepancy score.

Second, as anxiety is cued off by an awareness of a threat which is partly caused by internal inconsistency, the level of conscious awareness of the internal inconsistency would be an important factor related to an individual's level of anxiety. A state of internal inconsistency could be detected by the difference between the number of traits upon which an individual had a positive view toward himself and those on which he had a negative view. But no measure was taken to assess each individual's level of conscious awareness of such an internal inconsistency. If an individual was at a low level of awareness of the internal inconsistency, his level of anxiety might be low in spite of

the indication of a high internal inconsistency by the responses on the test.

Third, in the assignment of weight to the subject's patterns of responses, two types of response patterns were assigned a value of zero because of the vagueness of their psychological meaning. The two patterns were: (1) identical response for the three aspects of the self structure; and (2) instances where the response for the "reasonably satisfactory" self was equal-distant from the perceived self and the ideal self. From the way the discrepancy score was derived in this study, there were two possibilities for a subject to have a low positive or a low negative discrepancy score. Either the subject had similar number of traits with positive view of his perceived self as well as those with negative view, or the subject had a large number of items with the above two types of response patterns.

The phenomenon of having a large number of items with the two vague types of response patterns might be caused by two possible reasons. First, the subject was unwilling to reveal his perceptions of the three aspects of his self structure. As the mean lie score for the group of subjects analyzed was quite low, the possibility that students deliberately falsified their responses did not seem to be high. Second, the subject may not have given serious consideration in making his responses either of the two ambiguous responses would be the easiest way to get the task done.

Thus, some error in assessing the student's actual internal consistency was possible.

Fourth, the measurement of the subject's anxiety level depended largely on the subject's ability to recall their reactions and feelings in situations of anxiety. The degree of sensitivity to anxiety varies among individuals. Anxiety level thus measured was only a rough estimate of a person's real level of anxiety.

These four possible reasons were all related to the techniques of the investigator's approach to the problem under study. Any one of these four or all of them may cause the lack of conclusiveness of the results in this study.

The analysis of the limitations of this investigation leads to suggestion for further studies.

1. Because of a firm belief in the importance of the "reasonably satisfactory" aspect of the self structure, and the partial justification of the rationale for this study, a replication with more precise measurements would be desirable.

2. Comparative study may be made between the old approach of analyzing one or two aspects of the self structure and the present approach of taking into consideration the interrelationship among the three aspects of the self structure. The better approach would lead us to a better understanding of human behavior.

3. According to the principle of development, an individual's ability to differentiate develops as he grows. From this study, it was found that most of the ninth graders in this sample were capable of differentiating among the perceived self, the "reasonably satisfactory" self, and the ideal self. A developmental longitudinal or cross-sectional study of the development of the ability to differentiate among the various aspects of the self structure might be carried out. Whether or not the present system of education facilitates its development and the possible approaches might be studied.

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APPENDIX A

REVISED BILLS INDEX OF ADJUSTMENT AND VALUES

rIAV

Name _____ School _____ Sex ____

Explanation: Most of us are not completely satisfied with ourselves. Often we would like to have more or less of one characteristic or another. This inventory contains a list of characteristics. Your sincere responses to this inventory will contribute to the understanding of human behavior.

Directions:

1. In column I of the following page, please respond to each characteristic so that you describe yourself as you are.

2. In column II of the following page, please respond to each characteristic so that you describe the kind of person you would most like to be.

3. In column III of the following page, please respond to each characteristic so that you describe the kind of person you would be reasonably satisfied to be.

4. Please indicate your responses by filling in the three columns of blanks with the number chosen from the following alternatives.

1	2	3	4	5	6	7
Never	Almost never	Rarely	Occasionally	Frequently	Almost always	Always

For example:

	Column I	Column II	Column III
A. careful	A. _____	A. _____	A. _____

If you consider yourself RARELY careful, write "3" in the blank in Column I next to item number A.

If you consider the kind of person you would most like to be as ALWAYS careful, write "7" in the blank in Column II next to item number A.

If you consider the kind of person you would be reasonably satisfied to be as FREQUENTLY careful, write "5" in the blank in Column III next to item number A.

This is a study of what people think about themselves in terms of the following list of characteristics. Only your own real responses, not what other people would respond nor what you think you should respond, will make this study valuable. So please respond carefully and honestly. Your cooperation will be greatly appreciated.

In each of the blank spaces provided below, place a number from 1 to 7, following the directions on the previous page.

Alternatives of responses:

1	2	3	4	5	6	7
Never	Almost never	Rarely	Occasionally	Frequently	Almost always	Always

If you have any questions, please ask them before proceeding any further.

	Column I Describe yourself as you are	Column II Describe the person you would most like to be	Column III Describe the person you would be reasonably satisfied to be
1. acceptable	1. ____	1. ____	1. ____
2. accurate	2. ____	2. ____	2. ____
3. alert	3. ____	3. ____	3. ____
4. ambitious	4. ____	4. ____	4. ____
5. broadminded	5. ____	5. ____	5. ____
6. calm	6. ____	6. ____	6. ____
7. charming	7. ____	7. ____	7. ____
8. clever	8. ____	8. ____	8. ____
9. competent	9. ____	9. ____	9. ____
10. competitive	10. ____	10. ____	10. ____
11. confident	11. ____	11. ____	11. ____
12. considerate	12. ____	12. ____	12. ____
13. cruel	13. ____	13. ____	13. ____
14. democratic	14. ____	14. ____	14. ____
15. dependable	15. ____	15. ____	15. ____
16. efficient	16. ____	16. ____	16. ____
17. fault-finding	17. ____	17. ____	17. ____
18. fearful	18. ____	18. ____	18. ____
19. friendly	19. ____	19. ____	19. ____
20. fashionable	20. ____	20. ____	20. ____
21. helpful	21. ____	21. ____	21. ____
22. intellectual	22. ____	22. ____	22. ____
23. kind	23. ____	23. ____	23. ____
24. logical	24. ____	24. ____	24. ____
25. merry	25. ____	25. ____	25. ____
26. mature	26. ____	26. ____	26. ____
27. nervous	27. ____	27. ____	27. ____
28. optimistic	28. ____	28. ____	28. ____
29. poised	29. ____	29. ____	29. ____
30. purposeful	30. ____	30. ____	30. ____
31. reasonable	31. ____	31. ____	31. ____
32. reckless	32. ____	32. ____	32. ____
33. responsible	33. ____	33. ____	33. ____
34. sarcastic	34. ____	34. ____	34. ____
35. sincere	35. ____	35. ____	35. ____
36. studious	36. ____	36. ____	36. ____
37. successful	37. ____	37. ____	37. ____
38. stubborn	38. ____	38. ____	38. ____
39. tactful	39. ____	39. ____	39. ____
40. useful	40. ____	40. ____	40. ____

APPENDIX B

CHILDREN'S FORM OF THE MANIFEST ANXIETY SCALE

CMAS

Name _____ School _____ Sex ____

Directions: This inventory consists of 53 statements. You are to decide whether each statement is true or false in your own case. Encircle "YES" next to the statement if it is true for you. Encircle "NO" if it is false for you. Work rapidly. Be sure to answer every item.

For example:

YES NO a. It is fun to watch a football game.

If you enjoy watching a football game, encircle "YES"
If you do not, encircle "NO".

YES NO 1. It is hard for me to keep my mind on anything.
YES NO 2. I get nervous when someone watches me work.
YES NO 3. I feel I have to be best in everything.
YES NO 4. I blush easily.
YES NO 5. I like everyone I know.
YES NO 6. I notice my heart beats very fast sometimes.
YES NO 7. At times I feel like shouting.
YES NO 8. I wish I could be very far from here.
YES NO 9. Others seem to do things easier than I can.
YES NO 10. I would rather win than lose in a game.
YES NO 11. I am secretly afraid of a lot of things.
YES NO 12. I feel that others do not like the way I do things.
YES NO 13. I feel alone even when there are people around me.
YES NO 14. I have trouble making up my mind.
YES NO 15. I get nervous when things do not go the right way for me.
YES NO 16. I worry most of the time.
YES NO 17. I am always kind.
YES NO 18. I worry about what my parents will say to me.
YES NO 19. Often I have trouble getting my breath.
YES NO 20. I get angry easily.
YES NO 21. I always have good manners.
YES NO 22. My hands feel sweaty.
YES NO 23. I have to go to the toilet more than most people.
YES NO 24. Other people are happier than I.
YES NO 25. I worry about what other people think about me.
YES NO 26. I have trouble swallowing.
YES NO 27. I have worried about things that did not really make any difference later.
YES NO 28. My feelings get hurt easily.
YES NO 29. I worry about doing the right things.
YES NO 30. I am always good.

YES NO 31. I worry about what is going to happen.
YES NO 32. It is hard for me to go to sleep at night.
YES NO 33. I worry about how well I am doing in school.
YES NO 34. I am always nice to everyone.
YES NO 35. My feelings get hurt easily when I am scolded.
YES NO 36. I tell the truth every single time.
YES NO 37. I often get lonesome when I am with people.
YES NO 38. I feel someone will tell me I do things the wrong way.
YES NO 39. I am afraid of the dark.
YES NO 40. It is hard for me to keep my mind on my school work.
YES NO 41. I never get angry.
YES NO 42. Often I feel sick in my stomach.
YES NO 43. I worry when I go to bed at night.
YES NO 44. I often do things I wish I had never done.
YES NO 45. I get headaches.
YES NO 46. I often worry about what could happen to my parents.
YES NO 47. I never say things I shouldn't.
YES NO 48. I get tired easily.
YES NO 49. It is good to get high grades in school.
YES NO 50. I have bad dreams.
YES NO 51. I am nervous.
YES NO 52. I never lie.
YES NO 53. I often worry about something bad happening to me.