CHANGE AND THE INDIVIDUAL: THE RELATIONSHIP BETWEEN THE AMOUNT OF CHANGE IN THE LIFE OF A STUDENT AND HIS SELF-CONCEPT

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PREFACE

The purpose of this study was to determine if a relationship exists between the amount of change in the life of a student and his self-concept. The students who participated in the study were from two high schools in Wichita, Kansas. The researcher is grateful to the Wichita Public Schools for permission to complete the study and to the faculty and students of South High School and Southeast High School for their cooperation.

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THE RESEARCH PROBLEM

Introduction

In modern life, man can be sure of only one thing: change. Stability is a transient and tradition an ephemera.

> Western society for the past three hundred years has been caught up in a fire storm of change. This storm, far from abating, now appears to be gathering force. Change sweeps through the highly industrialized countries with waves of ever accelerating speed and unprecedented impact (Toffler, 1970).

Since the beginning of the twentieth century, change has accelerated to the extent that as much has happened since the turn of the century as happened in all previous recorded history. Kenneth Boulding (1965) observes that "the date that divides human history into two equal parts is well within living memory."

This high velocity of change is due primarily to a growth-oriented society which has brought about great technological advances. The story of the benefits of technology is by now so familiar one hesitates to repeat the saga of mechanization from the clock to the computer and beyond. Man needs only to look around him to see how technology has changed and continues to change the environment.

"John Diebold, the American automation expert, warns that 'the effects of the technological revolution we are now living through will

be deeper than any social change we have experienced before'" (Toffler, 1970).

The advances in technology which have brought undreamed of benefits to man have also brought about a grave sociological crisis. Technology is not an isolated aspect of the environment, and it is not only machines. It is rather a sociological phenomenon related to every factor in the life of man. "Technique" is the term Ellul (1964) applies to this technological invasion of all areas of man's life: his government, his organizations, his economy, his life style, his family, his knowledge and the way he thinks, in short his total environment.

The Study of Change

Change is not a new phenomenon; it has been evident since the beginning of time. But most changes occurred over generations and took long periods of time. When the slow moving societal change of the past received scholarly attention, it was from the anthropologist who studied the culture and characteristics of man, usually in primitive societies, with the view of understanding man's origin. A few anthropologists, such as Firth (1951) and Barnett (1953), have addressed themselves directly to change. A study conducted by the Studies of Cultural Regularities Project was concerned with the influence of the contemporary industrial world upon traditional societies. The research on ten societies -- three in Africa, four in East Asia, and three in America -- was carried out between 1958 and 1960 and published in the three volume Contemporary Change in Traditional Societies (Stewart, 1967). This study is of particular importance for it established a methodology whereby anthropologists could study contemporary change.

The Cornell University Department of Sociology and Anthropology has a program for the study of the social and cultural dynamics involved in the introduction of modern agriculture, industry, and medicine in areas that are deficient in these technologies. A case study of such problems, Human Problems in Technological Change (Spicer, 1952) sheds light on individual and societal reaction to change.

In recent years, sociologists have also applied anthropological and sociological method to the industrialized societies in an attempt to understand the impact of change on modern society. Of grave concern also is the study of change as it relates to the individual. What is the impact of change on man? This question for the most part remains unanswered.

The most significant work assessing the impact of change on the individual has been conducted by T. H. Holmes and associates at the Medical School of the University of Washington in Seattle. Holmes' research evolved from the work of Adolph Meyer (Lief, 1948) in psychobiology, which emphasized the importance of life change, and the subsequent research of Harold G. Wolff (1950). which provided evidence that life events or changes play an important causative role in the natural history of many diseases. Holmes with Richard Rahe constructed the Schedule of Recent Experience (SRE) (1968), which measured change. (Further discussion of this instrument appears in Chapter II).

The SRE has been used in several studies which correlated life change to disease onset. A study by Rahe and Holmes (n.d.) indicated a direct relationship between the magnitude of life change and health change. As the life changes increased, so did the percentage of illness associated with life crisis. [Life crisis was defined as any life

change score (LCU) over 150.] Of the life crises between 150 and 199 LCU, 37 per cent had an associated health change. Between 200 and 299 LCU, 51 per cent had a health change. Seventy-nine per cent had a health change with scores of 300 or greater LCU. A follow-up study by Rahe and Holmes (in preparation) had similarly striking results, as did Holmes (1970), Rubin et al. (1969), and Holmes and Holmes (1970).

Rahe (1968) and Rahe, Mahan, and Arthur (1970) studied approximately 2,500 officers and enlisted men aboard three U. S. Navy cruisers for six months at sea. The scores on the SRE were used to divide the men into high, medium, and low risk groups with the upper 30 per cent of the rank ordering of the LCU being the high risk group and the lower 30 per cent the subjects in the low risk group. In the first month of the cruise, the high risk group had nearly 90 per cent more first illnesses than the low risk group. Each month during the cruise period, the high risk group consistently reported more illnesses.

Bramwell et al. (in preparation) modifying the SRE, associated the magnitude of life change with injury in college football players. One hundred subjects were divided by thirds into high, medium, and low risk groups according to the rank order of the life change scores. At the end of the football season three months later, 50 per cent of the high risk group had been injured, 25 per cent of the medium risk group, and 9 per cent of the low risk group. Of the ten players who sustained multiple injuries during the season, seven were in the high risk group. Bramwell et al. (in preparation) in subsequent studies found a 70 per cent association of injury in the high risk group.

Holmes and Masuda (1970) have summarized these findings as follows:

The greater the magnitude of life change (or life crisis),

> the greater the probability that the life change would be associated with disease onset, and the greater the probability that the population at risk would experience disease. There was also a strong positive correlation between magnitude of life change (life crisis) and seriousness of the chronic illness experienced. The major health changes observed covered a wide range of psychiatric, medical, and surgical diseases.

The implications of this research are spectacular and frightening in themselves. However, one cannot help but wonder in what other ways change is affecting man. If change so drastically affects bodies, what does it do to psyches?

The literature which relates to change is overwhelming. Sociologists and anthropologists have studied changing societies, changing social structures, changing cultures and changing values as well as more specific areas such as the changing family and kinship systems, changing life styles, and the changing church. Political scientists and economists have addressed themselves to changes in economy, markets, politics, law, government, and news media and communications. Change has been recognized as a force which is affecting all areas of life, and researchers in many fields have undertaken the study of change using the methodology of their particular disciplines.

Psychologists and educators have studied effects of specific life crises on individuals. This research needs to be extended to study the effect of change in general upon individuals. In order to study this previously unresearched field, educational methodology suggests that correlational studies should be undertaken to determine if relationships exist between important educational variables and the amount of change in a student's life. An appropriate approach for initial research in this area, would be to identify a single variable which is related to

many aspects of education. Educational research has recognized self-concept as a central construct which condenses many variables which are known to be important to human development and educational success.

> Is there something about a person that summarizes all that he is and serves as a supramoderator of his functioning? Is there some type of vital and relevant data about a person that supercedes other things in importance to the individual and thereby expresses his true 'raison d'être?' A basic hypothesis of this monograph, and the research program from which it comes, is that the self concept fulfills such a function. If it can be demonstrated that an individual's concept of himself somehow cuts across, condenses, or captures the essence of many other variables (motives, needs, attitude, values, personality), then we have a simpler and more central variable with which to deal (Fitts, 1971).

Previous educational research as well as educational research methodology indicate that a review of literature which deals with self-concept may lead to a decision regarding the educational variable which is best suited to this initial research, the intent of which is to determine the existence or extent of a relationship between educational variables and the amount of change in a student's life.

The Study of Self-Concept

Self-concept is the essence of the individual; it is those aspects of the individual which he accepts as himself at all times in all places (Combs and Snygg, 1959). Self-concept is the individual as he is known to himself (English and English, 1958); it includes "What I am", "What I Do", and "How I feel about myself" (Fitts, 1965). The theory of self-concept began with William James (1890) and since that time a wide variety of theories dealing in some degree with self-concept have been developed [e.g. Cooley (1902), Adler (1924), Mead (1934), Horney (1937), Fromm (1939), Lundholm (1940), Angyal (1941), Chein (1944), Berlocci

(1945), Lecky (1945), Sullivan (1947), Sherif and Cantril (1947), Snygg and Combs (1949), Symonds (1949), Freud (1950), Erikson (1950), McClelland (1951), Rogers (1951), Sarbin and Farberow (1952), Maslow (1954), Lynd (1958), and Fitts (1970)].

Fitts, in construction of the Tennessee Self Concept Scale (1965), worked from the general framework of Snygg and Combs, Rogers, and Maslow. These phenomenological theorists explain human behavior in terms of each individual's perceptual field. Snygg and Combs (1949) define the perceptual field as the whole universe, everything of which the individual is aware as he experiences it at the instant of action. The perceptual field includes the self-concept, which is made up of all those parts of the phenomenal field which the individual experiences as part or characteristic of himself.

Self-concept is a mediating construct between the individual and society. This sociological view of self was first expressed by Cooley (1902) in the "looking-glass self", a theory in which the society and the person have no separate existence but are aspects of the same reality. Mead (1934) further defines the social self in terms of the "I" and the "me". The "I" is expressed in the uniqueness of individual personality and is flexible and unpredictable, active, and creative. It allows for social change. The "me" is similar to the "looking-glass self" and it consists of predictable responses to the expectations of others. It is the internalization of the attitudes of others and is norm centered. The "me" promotes social order.

The theory of self-concept has been well developed in psychological and sociological literature. Empirical studies which test pertinent hypotheses have been conducted in an attempt to scientifically evaluate

self-concept theory. A critical review of research on self-concept by Wylie (1961) provides an evaluative, organized summary of the theoretical and empirical literature. Since that time, there has been a proliferation of empirical studies dealing with self-concept. However, there have been no studies which deal directly with self-concept and the amount and rate of life changes. The studies chosen for review here fall into the following categories:

(1) self-concept and personal adjustment;

(2) self-concept and correlates related to change.

Self-Concept and Personal Adjustment

Current research by Fitts is based on the assumption that self-concept "is a short cut to many other kinds of relevant information about people" (Fitts, 1971). The theory upon which this assumption is based can be found in Interpersonal Competence: The Wheel Model (Fitts, 1970) while empirical research to support the theory is found in the Self-Concept and Self-Actualization (Fitts, 1971). Fitts hypothesized that self-concept is an index of self-actualization or personality integration. Gividen (1959) using the TSCS showed that paratroop trainees who were able to perform effectively differed in the predicted direction on most TSCS scores from less effective trainees. A study by Fitts (1971) involving eight professionals in the mental health field found a correlation of 1.00 between the Total P Score on the TSCS and mental health rankings of the subjects. Fitts in other studies has found that people who are above average in mental health tend to differ in predicted ways from average people in the kinds of self-concepts they report. Fitts (1965a) collected data from three subject groups

judged to be above average in mental health. The findings, which refer to people who were judged to have high personality integration, are reported by Fitts (1971) to have very high self-esteem with the great majority of the subjects scoring well above the mean on the P (positive) scores of the Tennessee Self Concept Scale.

Fitts reports many other studies which substantiate his theory. Vargas (1968) selected three subject groups from a population of 277 college males using The Positive Experiencing and Behavior Scale (Puttick, 1964). The three groups consisted of the 30 students reporting the highest frequency of positive experience, the 30 students whose frequency scores fell closest to the mean, and the 30 students with the lowest frequency.

> Differences similar in direction were also apparent in self concept. On the TSCS, the High group's scores were more positive than both the Middle and Low group's on 10 subscales (Total P, Row 1, Row 3, Column A, Column C, Column D, Column E, General Maladjustment, Psychosis, and Neurosis), and more positive than the Low group on six additional subscales (Row 2, Distribution D, Number of "5" and "2" Responses, Defensive Positive, and Number of Deviant Signs). In addition, the differences were in the predicted direction on most of the other TSCS scores. The differences between the High and the Low groups were particularly clear. Not only did the High group evidence significantly more positive self-esteem, but on all four TSCS subscales which measure various forms of emotional malfunctioning these subjects were depicted as operating on a healthier level. Here, again, are data supporting the position that self concept and level of psychological health are significantly related to each other (Fitts, 1971).

Landsman (1968) hypothesized that the frequency and intensity of positive experiences is the primary determinant of the healthy personality. Lynch (1968) supported this hypothesis in a two-part study. In the first part, the subjects were placed into two groups, those whose past experience had a predominantly opening effect (reducing

defensiveness and increasing the readiness for additional experiencing) and those whose experiences had a closing effect (increasing defensiveness, withdrawal, and avoidance).

> Part II of the study involved 54 selected subjects, and an additional variable, self-esteem, as measured by Total P Score on the TSCS. Self-esteem, or the positive-negative dimension of self concept, had a very clear and significant relationship to other variables. Subjects whose experiences were judged as 'Opening' had significantly higher P Scores than those for whom the effect of an intense experience was 'Closing'. Twenty-two of the 27 subjects with high self-esteem reported 'Opening' effects and only five reported 'Closing' effects. Of the 27 low self-esteem subjects, only three reported 'Opening' effects while 24 gave evaluations of their experiences which were categorized as 'Closing'. Thus, Lynch's work demonstrates a strong relationship between the degree of positiveness of self concept, and the nature and effects of previous significant experiences (Fitts, 1971).

Duncan (1966), using his own instrument, the Personality Integration Reputation Test (PIRT), as a means of identifying persons of high behavioral competence, found that when male fraternity members identified by their peers as being highly effective were compared to individuals randomly selected from the same subject pool, the highly effective group were more similar to Fitts (1965a) Personality Integration Norm Group on 22 out of 29 subscales of the TSCS.

Seeman (1966) replicated Duncan's study and found even stronger evidence. The highly effective group scored in the direction of Fitts' PI group on 26 of 29 subscales. These results were judged to be at the .001 level of significance.

The studies cited dealing with high personality integration were concerned with subjects with high self-concept. Going in the other direction, equally convincing results were found.

> Other studies (Ashcraft and Fitts, 1964; Congdon, 1958; Havener and Izard, 1962; Huffman, 1964; Piety, 1958;

> Wayne, 1963; Fitts, 1965a; Helbig, 1967; McFern, 1968; and others) with psychiatric patients and other maladjusted groups demonstrate that poorly adjusted, poorly functioning individuals have contrasting self concepts. They differ from the general population in the opposite direction on most of the TSCS scores. Their self concepts are more negative, less certain, more deviant, more conflicted and confused, and more variable. Numerous other studies also show that these self concept scores are related to the individual's performance in a variety of situations (Fitts and Hamner, 1969).

Many studies have been undertaken which show a relationship between delinquent behavior and poor self-concept. Lefeber (1965) found consistent and significant differences between non-delinquent and repeated delinquent groups in self-concept as measured by the TSCS. Lower scores among the recidivists indicates a high degree of self-devaluation which strengthens the contention that there is a relationship between delinquent behavior and poor self-concept.

The data, which clearly reveals a relationship between high self-concept and integrated fully functioning people, is made more powerful by the empirical studies which show a relationship between poorly adjusted, poorly functioning individuals and low self-concept. Taken together, these studies provide ample support for the contention that knowing about the self-concept of an individual is a short cut to a great deal of information about the person.

Of particular interest to educators are studies which connect achievement in school with self-concept. Fink (1962) hypothesized that adequate self-concept is related to high academic achievement and that inadequate self-concept is related to underachievment. Results supported the hypothesis at the .01 level for boys and at the .1 level for girls. Borislow (1962) found that students who do poorly scholastically do not have adequate self-concepts, Reeder (1955) reported that pupils

who had low self-concepts exhibited low academic achievement in relation to their potentials, and Spache (1949) connected learning difficulties with self-concepts. Tiegland et al. (1966) found that achievers scored significantly higher towards better adjustment than non-achievers on all scales of the California Test of Personality. Sears (1957) associated positive self-concepts with academic achievement in early school years; Miller (1963) reported that acceptance of self is significantly related to school achievement; Jones and Grieneeks (1970) stated that self-perception positively relates to scholastic achievement. Bruck (1959) and Binder (1965) found a relationship between self-concept and grade point average. Williams and Cole (1968) administered the TSCS and the California Achievement Test Battery to 80 sixth-grade students. They found correlations between self-concept and reading achievement and between self-concept and mathematical achievement to be significant at the .01 level.

The relationship between achievement in school and self-concept strengthens Fitts hypothesis that self-concept is an indicator of the functioning of individuals, particularly those of school age.

Self-Concept and Correlates Related to Change

There are no studies in the literature which deal directly with the relationship between self-concept and the amount and rate of change in the lives of individuals. In the fields of psychology and education, there have been innumerable studies which have dealt with life events and their effect on the individual. These studies deal with questions concerning the effect on a child of such events as the death of a parent, personal illness or illness in the family, moving, parental

divorce, etc. These studies are not directly related to the amount and rate of change the individual experiences. There have been a few studies, however, which though dealing with specific life events imply that it is the concept of change which is related to self-concept rather than the ramifications of any specific life event.

Coopersmith (1967) reports in The Antecedents of Self-Esteem a broad study conducted with a population of 1,748 preadolescents (age 10 to 12). Several different types of measures were used. The students answered a 50-item Self-Esteem Inventory (SEI). Subjective self-esteem was based on this instrument. The teachers of the students were asked to rate each child using the Behavior Rating Scale (BRS). From the correlation of these two measures, five groups were formed, each representing a particular type of self-esteem. The High-Highs (H-H) were those students who scored high in self-esteem (upper quartile) on both the SEI and the BRS. The Medium-Mediums (M-M) scored within the interquartile range on each instrument while the Low-Lows (L-L) scored in the lowest quartile. Two groups showed divergent or discrepant self-esteem: the High-Lows (H-L) with subjective scores in the highest quartile, and behavior ratings in the lowest quartile and Low-Highs (L-H) with low scores on the SEI and high ratings on the BRS.

The children in the five groups were then individually tested by a battery of clinical tests including the Weschler Intelligence Scale for Children, the Rorschock, the Thematic Apperception Test, the Figure Drawing Test, and a specially developed Sentence Completion Test. The mothers of the participants were interviewed for an average length of two and one-fourth hours, and they also answered a questionnaire based on the Parent Attitude Research Instrument.

Obviously, with so much information to work with, the results of the study are massive. In The Antecedents of Self-Esteem, Coopersmith reviews some of the findings of the study. The review of the results included here are limited to those variables which seem to suggest a possible relationship between amount and rate of change and self-concept.

Several of the variables dealt with work history of the family. The study found no significant relationship between self-esteem and the occupational level of the father, but a significant relationship was found between regular employment and high self-esteem and irregular employment and low self-esteem. Another aspect of the father's occupation that may affect the child is the extent of the father's job-related absence from the home. The study found that children who manifest discrepancy between subjective and behavioral self-esteem (H-L) (L-H) are more likely to have fathers whose positions require frequent travel. Forty-eight and three-tenths per cent of the children with discrepant self-esteem have fathers who travel while only 18 per cent of the nondiscrepant children have fathers who travel. The fathers sense of stability and security in his employment also affects the child. Twenty-two and six-tenths per cent of the discrepant children have fathers whose employment is unstable while none of the nondiscrepant children have fathers with unstable jobs.

The work history of the mother also is of interest to the present study. Coopersmith found that while the fact that the mother worked and was absent from the home showed no significant relationship with self-esteem, the length of the mother's employment was positively related to the child's subjective self-esteem. Of the students with low

self-esteem who had working mothers, 90 per cent of the mothers had worked less than one year while only 10 per cent had worked more than a year. These figures concerning the length, stability, and regularity of employment of both the mother and the father lend credence to the hypothesis that there is a relationship between the amount and rate of change in a student's life and his self-concept.

Another interesting aspect of Coopersmith's study deals with trauma and problems occurring in childhood. Statistical analysis of the data revealed that single traumatic events occurring at some time during the life of the child from birth to the time of the study were not related to self-esteem. However, the frequency of problems in childhood was significantly related to self-esteem. Two-thirds of the children studied who had low self-esteem had had to cope with frequent problems throughout childhood. Here again, it appears that rate of change might be related to self-concept.

Rationale and Problem Statement

Change has become a pervasive force in society and is doubtless affecting individuals in many ways. The implications of these changes to man and his future are unclear.

> We still do not know the ultimate effects of these transformations on the human being. We have only begun to study them. Precisely what is modified in man by this violent upheaval of every element of his environment? We do not know. But we do know that violent modifications have taken place, and we have a foreboding of them in the development of neuroses and in the new behaviors with which contemporary literature acquaints us (Ellul, 1964).

Much has been written in the past few years about change. Yet, very little research has dealt with the question of how change and the rate of change is affecting man.

> I should like to point to the greatest problem which man faces in the years to come. It is not the hydrogen bomb, fearful as that may be. It is not the population explosion, though the consequences of that are awful to contemplate. It is instead a problem which is rarely mentioned or discussed. It is the question of how much change the human being can accept, absorb, and assimilate, and the rate at which he can take it. Can he keep up with the ever increasing rate of technological change, or is there some point at which the human organism goes to pieces? Can he leave the static ways and static guidelines which have dominated all of his history and adopt the process ways, the continual changingness which must be his if he is to survive? (Rogers, 1969).

These questions as asked by Ellul and Rogers set obvious research problems for the behavioral sciences. Of growing concern is the suspected relationship between the amount of change in a person's life and his psychological health which is often defined in terms of self-concept. Self-concept is an index to the psychological functioning of the individual. It is a central construct which "condenses or captures the essence of many other variables" (Fitts, 1971). High self-concept is related to high personality integration, and conversely, low self-concept is related to poorly adjusted individuals. Self-concept can be compared then to the identity of the individual as it defines his personality integration or self-actualization.

In order to determine the effect of change on man, it is necessary to first establish the relationship between change and psychological health. An individual's self-concept is indicative of his psychological adjustment. Therefore, in this research an answer was sought to the following question: Is there a relationship between the amount of change in the life of a student and his self-concept?

Basic Hypotheses in Null Form

Hypothesis 1: There is no significant relationship between the amount of change in a student's life as measured by the Life Event Record (LER) and his overall level of self-concept as measured by the Total P (Positive) score on the Tennessee Self Concept Scale (TSCS).

a. There is no significant relationship between the amount of change in a student's life as measured by the LER and his personal identity as measured by the Row 1-Identity Sub-Scale of the TSCS.

b. There is no significant relationship between the amount of change in a student's life as measured by the LER and his self-satisfaction as measured by the Row 2-Self Satisfaction Sub-Scale of the TSCS.

c. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his behavior as measured by the Row 3-Behavior Sub-Scale of the TSCS.

d. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his physical self as measured by the Column A-Physical Self Sub-Scale of the TSCS.

e. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his moral ethical self as measured by the Column B-Moral-Ethical Self Sub-Scale of the TSCS.

f. There is no significant relationship between the amount

of change in a student's life as measured by the LER and his perceptions of his personal worth as measured by the Column C-Personal Self Sub-Scale of the TSCS.

g. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perception of his relations to his family as measured by the Column D-Family Self Sub-Scale of the TSCS.

h. There is no significant relationship between the amount of change in a student's life and his perception of his social relations to other people as measured by the Column E-Social Self Sub-Scale of the TSCS.

Hypothesis 2: There is no significant relationship between the amount of change in a student's life as measured by the LER and the total variability of one area of self-perception to another as measured by the Total Variability Sub-Scale of the TSCS.

Operational Definitions of Terms

Amount of change is measured by the Life Event Record (LER) which allows the respondent to document the occurrence of life event items over the period of a year. Amount and rate of change refers to a total change score which is obtained by adding together the life change units for each life event item.

Life event items are fundamentally important environmental influences which are rank ordered and weighted as items on the LER.

Life change units are the weighted additive scores of the life event items.

Self-concept is measured by the Total P (Positive) Score on the

TSCS which is comprised of the following eight subscales.

Personal identity is measured by the Row 1 P Score-Identity Sub-Scale of the TSCS. "These are the 'What I am' items. Here the individual is describing his basic identity--what he is as he sees himself" (Fitts, 1965).

Self satisfaction is measured by the Row 2 P Score-Self Satisfaction Sub-Scale of the TSCS. These items reflect "How I feel about myself." "In general this score reflects the level of self satisfaction or self acceptance" (Fitts, 1965).

Perception of behavior is measured by the Row 3 P Score-Behavior Sub-Scale of the TSCS. This score comes from those items that say "this is what I do, or this is the way I act." Thus, this score measures the individual's perception of his own behavior or the way he functions (Fitts, 1965).

Perception of physical self is measured by the Column A-Physical Self Sub-Scale of the TSCS. "Here the individual is presenting his view of his body, his state of health, his physical appearance, skills, and sexuality" (Fitts, 1965).

Perception of moral-ethical self is measured by the Column B-Moral-Ethical Self Sub-Scale of the TSCS. "This score describes the self from a moral-ethical frame of reference--moral worth, relation to God, feelings of being a 'good' or 'bad' person, and satisfaction with one's religion" (Fitts, 1965).

Perception of personal worth is measured by the Column C-Personal Self Sub-Score of the TSCS. "This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality" (Fitts, 1965).

Perception of relations to family is measured by the Column D-Family Self Sub-Scale of the TSCS. "This score reflects one's feelings of adequacy as a family member" (Fitts, 1965).

Perception of social relations to other people is measured by the Column E-Social Self Sub-Scale of the TSCS. "This relfects the person's sense of adequacy and worth in his social interaction with other people in general (Fitts, 1965).

Total variability of one area of self perception to another is measured by the Total Variability (V) Sub-Scale of the TSCS.

> The V scores provide a simple measure of the amount of variability, or inconsistency, from one area of self perception to another. The total V represents the total amount of variability for the entire record. High scores mean that the person's self concept is so variable from one area to another as to reflect little unity or integration. High scoring persons tend to compartmentalize certain areas of self and view these areas quite apart from the remainder of self (Fitts, 1965).

Basic Assumptions

(1) A basic assumption of this research is that more and more change is occurring in the lives of individuals and that this rate of change effects individuals.

(2) This research assumes that "the self-concept is a central construct that is a short cut to many other kinds of relevant information about people" (Fitts, 1971).

Limitations

(1) This study cannot specify the direction of antecedent--consequent relationship between amount and rate of change and self-concept, but it is rather concerned with

investigating the possibility that any relationship exists.

(2) This research cannot be generalized beyond the population studied.

Format for Succeeding Chapters

This study consists of four chapters. Following the present introductory chapter, which also reviews related research and literature, Chapter II is a discussion of the instrumentation of the study and research procedure, Chapter III is a presentation of the statistical treatment of the data while Chapter IV summarizes the study, presents findings, gives conclusions drawn from the findings, makes recommendations in light of the conclusions, and suggests areas for further research.

CHAPTER II

INSTRUMENTATION OF THE STUDY AND RESEARCH PROCEDURE

Introduction

This chapter describes in detail the two instruments used in the study, the Life Event Record and the Tennessee Self Concept Scale. Procedures followed in selection of the population, administration and scoring of the instruments, and application of statistical treatment are discussed.

Life Event Record

The Life Event Record (LER) (Appendix A) was developed by Dr. R. Dean Coddington (1972) of the Ohio State University College of Medicine. Dr. Coddington followed the method devised by Holmes and Rahe (1967a, b) and Holmes and Masuda (1970) for quantifying the significance of various life events in an adult population. As the LER, which was designed for children, is actually a modification of Holmes and Rahe's Schedule of Recent Experience (SRE) (1967b), it is necessary to first discuss the development of the SRE.

Dr. Holmes and his associates first developed the Social Readjustment Rating Scale (SRRS) (1967a) which is made up of 43 items or life events which have been identified as requiring or evoking some adaptive or coping behavior on the part of the involved individual. Each item

was constructed to contain a single life event which is either indicative of or required a significant change in the life pattern of the individual. These items, which were developed after study of over five thousand subjects, pertain to major areas of significance in the social structure of the American way of life, including family, marriage, occupation, economics, residence, group and peer relationships, education, religion, recreation, and health. The items include events that are negative or socially undesirable as well as events which are consonant with American values and are deemed socially desirable.

The items on the SRRS were assigned magnitude through a study which required subjects to rate the series of life events as to their relative degrees of necessary adjustment. The magnitude for each event was derived from the geometric mean of the scores. Consensus was high concerning the relative order and magnitude of the items as demonstrated by the high coefficients of correlation (above .90 using Pearson's r) among the various discrete groups contained in the sample. Such high correlations were also found in replication by Ruch and Holmes (1972) and in cross cultural studies by Seppa (in preparation), Celdran (1970), Komaroff et al. (1970), Herman et al. (1970), Rahe (1969), and Masuda and Holmes (1967). Reliability was demonstrated by Casey et al. (1967) using a test, retest method with results compared by correlation (Pearson's r.). The life event items in the SRRS were then incorporated to form the SRE, a self-administered questionnaire, which is scored by the scale of magnitude for life event items from the SRRS. This score is reported in Life Change Units (LCU).

The LER was developed utilizing the method described by Holmes and Masuda (1970). Coddington first developed a Social Readjustment Rating

Questionnaire for each of four age groups of children. (See Appendix B). The items were chosen from the literature and from experience with both normal and abnormal children following the same criteria used by Holmes and Rahe (1967a). The scale of magnitude for the items was then determined in the same manner used for the SRRS with subjects required to rate the life events as to their relative degrees of necessary adjustment. The sample that rated the items was composed of 131 teachers, 25 pediatricians, and 87 mental health workers employed in academic divisions of child psychiatry. As in the SRRS, geometric mean for each item determined the LCU (Appendix C).

Consensus among the discrete groups within the sample was high as to the relative order. The very high rank order correlations between subgroups are indicated in Appendix D. Magnitude was also investigated by comparing the results from teachers, pediatricians, and mental health professionals. Pediatricians and mental health professionals had almost identical values, disagreeing only twice. However, there was some difference between teachers and mental health professionals (Appendix E).

The LER, the questionnaire used in the present study, was developed from Coddington's Social Readjustment Rating Scale. Scoring was based on the LCU values indicated in Appendix C (p. 69) for the senior high school age group. Scoring Procedure is outlined in Appendix F.

The LER is a simple measurement of the environmental factors that impinge upon a child. The measurement can be made in a few moments and is free of interviewer bias. The results obtained can be compared to an average number of LCU (Appendix G) for each age group, social class, race, and sex, all of which were determined in a broad study conducted by Coddington (in preparation).

The Tennessee Self Concept Scale

The Tennessee Self Concept Scale (TSCS) was developed by William H. Fitts (1965b) to measure a person's perception of himself. This self-administered Scale consists of one hundred descriptive items with which the subject portrays his own picture of himself. The Scale can be used with subjects of age twelve or higher and is applicable to the whole range of psychological adjustment from healthy, well-adjusted people to psychotic patients. The TSCS is simple for the subject, widely applicable, well standardized and multi-dimensional in its description of self-concept. It is available in two forms, the Clinical and Research Form and the Counseling Form. The forms are identical except for the scoring and profiling system. Several more sub-scales which identify additional variables are included in the scoring procedure on the Clinical and Research Form. As there was no intent to measure these additional variables, the Counseling Form was chosen for the present research.

In development of the TSCS, Fitts first compiled a large pool of self-descriptive items which were derived from written self descriptions of patients and non-patients and from a number of other self-concept measures including those of Balester (1956), Engel (1956), and Taylor (1953). These items were then classified on the basis of what the items were saying into the two dimensional, three by five scheme which can be seen on the score sheet (Appendix H). This classification was judged by seven clinical psychologists who also judged each item as to whether it was positive or negative in content. Only the 90 items on which there was perfect agreement were utilized in the scale. The remaining 10

items in the scale form a truth factor which was taken from the L-scale of the Minnesota Multiphasic Personality Inventory (Hathaway and McKenley, 1951).

The norms for the TSCS were originally established by Fitts using a broad sample. Data collected represented all social and economic levels and educational levels from sixth grade through the doctoral degree with an age range from 12 to 68. Both black and white subjects were included as were people from various parts of the country, and there were approximately equal numbers of both sexes included in the sample. Subsequent studies have verified the original norm group results in that studies with different populations, Sundley (1962), Gividen (1959), Hall (1964) and other studies by Fitts (1965a) show group means and variances which are comparable to those of the norm group.

Validation procedures for the TSCS were reported in the Manual (Fitts, 1965a). Content validity was assumed on the basis that items were retained in the scale only if there was unanimous agreement among the judges as to classification and, therefore, the categories of the scale are logically meaningful and publically communicable.

Concurrent validity which is determined by obtaining estimates of the given performance from at least two sources at the same time (Cronbach, 1960) has been reported in abundance, and the TSCS has been found to correlate with several instruments including the MMPI and the Edwards Personal Preference Schedule (1953).

Another approach to validity was to determine how the TSCS differentiates between groups which are known to differ on certain psychological dimensions. Highly significant differences (.001) were found

between a large group of psychiatric patients and the norm group by Fitts (1965a). Similar patient versus non-patient differences were found by Congdon (1958), Piety (1958), Havener (1961), and Wayne (1963). Differences between delinquents and non-delinquents were found by Atchison (1958) and Lefeber (1964). Many other such examples of validity can be found in the literature. Other studies which support validation can be found in Fitt's monograph.

Reliability was first established by the author for all scores on the TSCS using a test-retest method. This reliability data is reported in the manual. (Reliability for Total P = .92) Subsequent reliability coefficients have been reported by Congdon (1958) and Nunnelly (1968).

The Tennessee Self Concept Scale has been used extensively in research since its publication in 1965. It has become the most widely used instrument for measuring self-concept, and it serves as a common thread for tying together many research and clinical findings as vast amounts of data have been accumulated using the TSCS.

Research Procedure

In choosing the population for this study, several facets were considered. First, it was decided that the study should be conducted in a metropolitan area. As the increasing changingness in the lives of humans is taking place at a faster rate in cities than rural areas (Toffler, 1970), it was thought that conducting the research in a city would allow for a wider range of change scores. Several metropolitan school systems were considered. The Wichita Public School System in Wichita, Kansas was the first choice for several reasons. The schools were integrated several years ago and, thus, there has been no recent

upheaval or transfer of students to interfere with the results of the LER. Also each school in Wichita has an approximately equal proportion of black students and, therefore, no special considerations needed to be made to control the racial composition of the sample. Permission to conduct the study was granted by the research department of the Wichita Public Schools.

After consideration of the five high schools in Wichita, two schools seemed to offer a broad cross section of students according to socio-economic status. A cross section was desirable to eliminate socio-economic class as a possible intervening variable. South High School students range from lower class through lower middle class to middle class. Southeast High School students range from middle class through upper middle class to upper class. The administrators of both these schools were amenable to the study, and complete cooperation and every consideration was given to the researcher. One hundred students were selected from South High School, one hundred students from Southeast High School. The students were from the tenth, eleventh, and twelfth grades in approximately equal numbers.

The instruments were administered by the researcher to small groups ranging in number from 15 to 30. A teacher from the school was present at each testing period. The instructions for taking the tests were read to the participants by the researcher. Identical instructions were given to each group. Complete anonimity was assured, and no record was made of the identity of the participants.

Scoring was done by hand by the researcher. Each instrument was scored twice as a check against errors. Two score sheets from the Tennessee Self Concept Scale were incorrectly worked, necessitating the

elimination of these two participants from the study which brought the total population to 198. The data was arranged in ascending order to divide the population into three equal groups. The 66 students with the lowest change scores comprised the low change group. Scores in this group ranged from 0 through 151. The middle 66 students whose scores ranged from 157 to 287 made up the medium change group. The 66 students with the highest change score comprised the high change group with scores ranging from 269 to 908. The medium change group was then eliminated from statistical consideration leaving the dichotomized groups of 66 students each for a total N of 132.

The scores were then key punched onto computer cards by the researcher and a biserial correlation, which is a product moment r, was computed by an IBM 360 using a program entitled "biser" which is in the IBM Subroutine Package. The biserial correlation (Giulford, 1965) was chosen as the appropriate statistical treatment as the data from both instruments was continuous with the continuous data from one variable (the change variable) being artificially dichotomized. The statistical analysis verified the assumptions that the relationship between the two variables was rectlinear, and distribution appeared to be fairly symmetrical and unimodal.

CHAPTER III

TREATMENT OF THE DATA

Introduction

This chapter presents the tabulated results of the data obtained from procedures described in Chapter II and also reports the decisions regarding the hypotheses. The data was collected in this study for the purpose of enabling a decision to be made regarding the following null hypotheses.

Null Hypothesis 1: There is no significant relationship between the amount of change in a student's life as measured by the Life Event Record (LER) and his overall level of self-concept as measured by the Total P (positive) score on the Tennessee Self Concept Scale (TSCS).

a. There is no significant relationship between the amount of change in a student's life as measured by the LER and his personal identity as measured by the Row 1-Identity Sub-Scale of the TSCS.

b. There is no significant relationship between the amount of change in a student's life as measured by the LER and his self-satisfaction as measured by the Row 2-Self Satisfaction Sub-Scale of the TSCS.

c. There is no significant relationship between the amount of change in a student's life as measured by the LER and

his perceptions of his behavior as measured by the Row 3-Behavior Sub-Scale of the TSCS.

d. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his physical self as measured by the Column A-Physical Self Sub-Scale of the TSCS.

e. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his moral ethical self as measured by the Column B-Moral-Ethical Self Sub-Scale of the TSCS.

f. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his personal worth as measured by the Column C-Personal Self Sub-Scale of the TSCS.

g. There is no significant relationship between the amount of change in a student's life as measured by the LER and his perception of his relations to his family as measured by the Column D-Family Self Sub-Scale of the TSCS.

h. There is no significant relationship between the amount of change in a student's life and his perception of his social relations to other people as measured by the Column E-Social Self Sub-Scale of the TSCS.

Null Hypothesis 2: There is no significant relationship between the amount of change in a student's life as measured by the LER and the total variability of one area of self perception to another as measured by the Total Variability Sub-Scale of the TSCS.

The data consisted of the scores of 132 senior high school students

from Wichita, Kansas. The statistical treatment applied to the data was a biserial correlation which was tabulated by computer. The level of confidence (alpha level) for the correlations was set at .05 which required coefficient values that were equal to or greater than $\pm$.174 for significance.

Results

The correlation coefficients which resulted from applying the biserial r to the scores from the LER and ten scales from the TSCS are reported in Table I.

TABLE I

CORRELATIONS

	Change
Overall Level of Self-Concept	-.43
Personal Identity	-.38
Self Satisfaction	-.29
Perceptions of Behavior	-.45
Physical Self	-.41
Moral Ethical Self	-.45
Perceptions of Personal Worth	-.30
Perceptions of Relations to Family	-.37
Social Self	-.08
Total Variability	.13

Hypothesis Testing

The relationship as represented by correlation coefficient between the amount of change in a student's life and his overall level of self-concept was -.43. This correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Hypothesis 1, "There is no significant relationship between the amount of change in a student's life as measured by the LER and his overall level of self-concept as measured by the Total P score of the TSCS," was rejected. The correlation coefficient indicates there is a significant relationship between the amount of change in a student's life and his overall level of self-concept. This relationship is negative which means that individuals making high scores on the LER are more likely to make low scores on the Positive P scale of the TSCS; and conversely individuals making low scores on the LER are more likely to make high scores on the Positive P scale of the TSCS. Thus, the relationship is in inverse order with high change scores related to lower self-concepts and low change scores related to higher self-concepts.

The relationship as represented by correlation coefficient between the amount of change in a student's life and his personal identity was -.38. This correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (a), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his personal identity as measured by the Row 1-Identity Sub-Scale of the TSCS," was rejected. This relationship is

also in inverse order with high change scores related to lower identity scores and low change scores related to higher identity scores.

The relationship as reported by correlation coefficient between the amount of change in a student's life and his self-satisfaction was -.29. This correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (b), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his self-satisfaction as measured by the Row 2-Self Satisfaction Sub-Scale of the TSCS," was rejected. This relationship is also in inverse order.

The relationship between the amount of change in a student's life and his behavior as reported by correlation coefficient was -.45. This correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (c), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his behavior as measured by the Row 3-Behavior Sub-Scale of the TSCS," was rejected. This relationship is also negative and, therefore, in inverse order.

The relationship as represented by correlation coefficient between the amount of change in a student's life and his physical self was -.41. This correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (d), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his physical self as measured by the Column

A-Physical Sub-Scale of the TSCS," was rejected. This relationship is also in inverse order.

The relationship between the amount of change in a student's life and his perceptions of his moral ethical self as reported by correlation coefficient was -.45. This inverse correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (e), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his moral ethical self as measured by the Column B-Moral-Ethical Self Sub-Scale of the TSCS," was rejected.

The relationship as represented by correlation coefficient between the amount of change in a student's life and his personal self was -.30. This inverse correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (f), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his perceptions of his personal worth as measured by the Column C-Personal Self Sub-Scale of the TSCS," was rejected.

The relationship between the amount of change in a student's life and his family self as reported by correlation coefficient was -.37. This inverse correlation was significant at the pre-set .05 alpha level ($\geq \pm .17$) and was also significant beyond the .01 confidence level ($\geq \pm .23$). Therefore, Null Sub-Hypothesis (g), "There is no significant relationship between the amount of change in a student's life as measured by the LER and his perception of his relations to his family as measured by the Column D-Family Self Sub-Scale of the TSCS," was rejected.

The relationship as represented by correlation coefficient between the amount of change in a student's life and his social self was -.08. This inverse correlation was not significant at the pre-set .05 alpha level ($\geq \pm .17$). Therefore, Null Sub-Hypothesis (h), "There is no significant relationship between the amount of change in a student's life and his perception of his social relations to other people as measured by the Column E-Social Self Sub-Scale of the TSCS," was not rejected.

The relationship as reported by correlation between the amount of change in a student's life and the total variability of one area of self perception to another was .13. This correlation was not significant at the pre-set .05 alpha level ($\geq \pm .17$). Therefore, Null Hypothesis 2, "There is no significant relationship between the amount of change in a student's life as measured by the LER and the total variability of one area of self perception to another as measured by the Total Variability Sub-Scale of the TSCS," was not rejected.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Individuals in modern society experience change at an increasing rate. This changingness has become an issue of concern to scholars in many fields as they theoretically and empirically consider the effects of change on man. The purpose of this study was to determine if a relationship exists between the amount of change in the life of a student and his self-concept.

The students who participated in the study were tenth, eleventh, and twelfth graders from two high schools in Wichita, Kansas. Change was measured by the Life Event Record (LER) a self-administered questionnaire which documents the occurrence of life events over the period of one year. The questionnaire was scored by adding together the weighted units for each designated life event item to obtain a total change score. Self-concept was measured by the Tennessee Self Concept Scale (TSCS). The Total P (Positive) Score on the TSCS was the primary measure of self-concept, though the sub-scales which make up the Total P Score were also considered as sub-hypotheses. Self-concept as measured by the Total P Score and the eight sub-scales which form the P score were then correlated with the total change score from the LER. The variability scale from the TSCS, which reports the inconsistency of an individual's self-concept was also correlated with the total change

score from the LER. The correlation coefficients were obtained from a biserial program computed by an IBM 360.

Findings and Conclusions

(1) There is a significant relationship at the .01 level of confidence between the amount of change in a student's life and his overall self-concept. Therefore, Null Hypothesis 1 was rejected. The relationship is negative and, therefore, in inverse order with high change related to lower self-concept and low change related to higher self-concept.

(2) There is a significant relationship at the .01 level of confidence between the amount of change in a student's life and his perceptions of his personal identity. Therefore, Null Sub-Hypothesis (a) was rejected. The negative correlation coefficient indicated that higher change is related to lower perceptions of personal identity.

(3) There is a significant inverse relationship at the .01 level of confidence between the amount of change in a student's life and his self-satisfaction. Therefore, Null Sub-Hypothesis (b) was rejected. High change is related to lower self-satisfaction, and low change is related to higher self-satisfaction.

(4) There is a significant inverse relationship at the .01 level of confidence between the amount of change in a student's life and his perception of his behavior.

Therefore, Null Sub-Hypothesis (c) was rejected. High change is related to lower perceptions of behavior, and low change is related to higher perceptions of behavior.

(5) There is a significant inverse relationship at the .01 level of confidence between the amount of change in a student's life and his perception of his physical self. Therefore, Null Sub-Hypothesis (d) was rejected. High change is related to lower perceptions of physical self, and low change is related to higher perceptions of physical self.

(6) There is a significant inverse relationship at the .01 level of confidence between the amount of change in a student's life and his perception of his moral-ethical self. Therefore, Null Sub-Hypothesis (e) was rejected. High change is related to lower perceptions of moral-ethical self, and low change is related to higher perceptions of moral-ethical self.

(7) There is a significant inverse relationship at the .01 level of confidence between the amount of change in a student's life and his perceptions of his personal worth. Therefore, Null Sub-Hypothesis (f) was rejected. High change is related to lower perceptions of personal worth, and low change is related to higher perceptions of personal worth.

(8) There is a significant inverse relationship at the .01 level of confidence between the amount of change in a student's life and his perception of his relations to

his family. Therefore, Null Sub-Hypothesis (g) was rejected. High change is related to lower perceptions of relations to family and low change is related to higher perceptions of relations to family.

(9) There is not a significant relationship between the amount of change in a student's life and his perception of his social self. Therefore, Null Sub-Hypothesis (h) was not rejected.

(10) There is not a significant relationship between the amount of change in a student's life and the total variability of one area of self-perception to another. The positive relationship as represented by the coefficient of correlation was significant at the .1 level of confidence which was not deemed adequate for rejection of the null hypothesis. Therefore, Null Hypothesis 2 was not rejected.

Recommendations for Further Study

This research is but a first step toward determining the effects of change on man. The results of this study indicate only that a significant negative or inverse relationship does exist between the amount of change in a student's life and his self-concept. Further research to augment the present findings should include:

(1) The present study should be replicated with other populations.

(2) It is interesting to note that all the areas of self-concept which make up the Total P Score with the

exception of perception of social self are significantly and inversely related to change. The correlation between change and perception of social self was not even close to being significant and in fact the correlation coefficient was only .08. Why is this variable different in relation to change from other areas of self-concept? Further research is needed to consider this question.

(3) More correlational studies should be undertaken to determine if relationships exist between change and other personal or academic variables.

(4) Self-concept is related to many other variables as reviewed here in Chapter I. The possibility of relationships between change and these variables should be explored.

(5) Longitudinal studies are needed in order to establish antecedent-consequence order between change and self-concept.

(6) Longitudinal studies should also be undertaken to consider change and other variables.

(7) As the body of knowledge concerning change and the individual grows, research designs should be formulated which allow for the possibility of establishing cause and effect relationships.

Theoretical Considerations

This study has established that an inverse relationship does exist between the amount of change in a student's life and his self-concept.

How will these findings be used? What ramifications will this knowledge have in decision making by educators?

Since change and self-concept are inversely related, educators might conclude that the schools must help students learn to cope with change so that they might overcome this negative effect. Certainly a curriculum designed to help students learn the traits demanded of them by society would be relevant and would directly prepare students for life in society. Educators who view curriculum from this standpoint must, however, be wary in their consideration of traits demanded by society. There is a danger that teaching a student to cope with forces which affect him negatively will force the student to passively accept an environment which is not conducive of a fulfilling life. If children are taught to cope with change, is the assumption implicit that change is inevitable?

This question raises a dilemma for educators. Knowing that high change is related to poor self-concept poses a moral obligation to help students deal with change. Is this accomplished by helping students cope with change? Or would the needs of the student be better served by helping him become aware of change so that he might consciously avoid the determinism of technological change and assume responsibility for controlling change.

Is it possible for man to transcend the forces of change and control and guide his own life? If it is possible, but educators settle for teaching coping, then are not educators forcing the press of determinism? Conversely, if personal responsibility for life is only the helpless musing of misguided humanists, then is a disservice committed by not teaching students to cope?

The results of this study lead to questions not answers. Not only do the findings suggest more empirical research as previously noted, they also point up the immediate need for further philosophic and theoretical considerations.

BIBLIOGRAPHY

Adler, A.

1924 The Practice and Theory of Individual Psychology. New York: Harcourt Brace.

Angyal, A.

1941 Foundations for a Science of Personality. New York: Commonwealth Fund.

Ashcraft, C., and W. H. Fitts.

1964 "Self-Concept Change in Psychotherapy." Psychotherapy, I, No. 3, 115-118.

Atchison, Calvin.

1958 "A Comparative Study of the Self-Concept of Behavior Problem and Non-Behavior Problem High School Boys." (Unpublished Doctoral Dissertation, Indiana University.)

Baird, Rita.

1971 "Teacher-Student Interpersonal Relationships and Student Self-Concepts." (Unpublished Doctoral Dissertation, Oklahoma State University.)

Balester, R. J.

1956 "The Self Concept and Juvenile Delinquency." (Unpublished Doctoral Dissertation, Vanderbilt University.)

Barnett, H. B.

1953 Inovation. New York: McGraw-Hill Book Company.

Bertocci, P.

1945 "The Psychological Self, The Ego and Personality." Psychological Review, 52, 91-99.

Binder, Dorothy M.

1965 "Relationships Among Self-Expectations, Self-Concept and Academic Achievement." (Unpublished Doctoral Dissertation, University of Wisconsin.)

Block, J., and H. Thomas.

1955 "Is Satisfaction With Self a Measure of Adjustment?" Journal of Abnormal and Social Psychology, 51, 154-259.

Borislow, Bernard.

1962 "Self-Evaluation and Academic Achievement." Journal of Counseling Psychology, IX (Fall), 246-253.

Boulding, Kenneth.

1953 The Organizational Revolution. New York: Harper and Row.

1956 The Image. Ann Arbor, Michigan: University of Michigan Press.

1965 The Meaning of the 20th Century. New York: Harper and Row.

Bramwell, S. T., N. N. Wagner, M. Masuda, and T. H. Holmes.

n.d. "Prediction of Injury in College Athletes." (In preparation.)

Bruck, Max.

1959 "A Study of Age Difference and Sex Difference in the Relationship Between Self-Concept and Grade Point Average." Dissertation Abstracts, 19, 1645-1646.

Bruck, M., and R. F. Bodwin.

1962 "The Relationship Between Self-Concept and the Presence and Absence of Scholastic Underachievement." Journal of Clinical Psychology, 18, 181-182.

Casey, R. L., M. Masuda, and T. H. Holmes.

1967 "Quantitative Study of Recall of Life Events." Journal of Psychosomatic Research 11, 239.

Celdran, H. H.

1970 "The Cross-cultural Consistency of Two Social Consensus Scales: The Seriousness of Illness Rating Scale and The Social Readjustment Rating Scale in Spain. (Medical Thesis, University of Washington, Seattle.)

Chein, I.

1944 "The Awareness of Self and the Structure of the Ego." Psychological Review, 51, 304-314.

Coddington, R. Dean.

n.d. "The Significance of Life Events as Etiologic Factors in the Diseases of Children. I: A Survey of Professional Workers." Journal of Psychosomatic Research. (In press.)

n.d. "The Significance of Life Events as Etiologic Factors in the Diseases of Children. II: A Study of a Normal Population." (In preparation.)

Combs, A., and D. Snygg.

1959 Individual Behavior: A Perceptual Approach. New York: Harpers.

Comer, James M.

1965 "A Study of Self-Concept Levels of Boys and Girls at the First Grade Level of School." (Unpublished Doctoral Dissertation, Oklahoma State University.)

Congdon, C. S.

1958 "Self Theory and Chlorpromazine Treatment." (Unpublished Doctoral Dissertation, Vanderbilt University.)

Cooley, C. H.

1902 Human Nature and the Social Order. New York: Scribner's.

Coopersmith, Stanley.

1967 The Antecedents of Self-esteem. San Francisco: W. H. Freeman and Company.

Cronback, Lee.

1970 Essentials of Psychological Testing. New York: Harper and Row.

DeFrain, David M.

1970 "The Effects of Self-Concept and Selected Personal and Educational Variables Upon Attrition in a Non-Credit College Reading Improvement Program." (Unpublished Doctoral Dissertation, Oklahoma State University.

Diller, Leonard.

1954-55 "Conscious and Unconscious Self-Attitudes After Success and Failure." Journal of Personality, 23, 1-12.

Duncan, C. B.

1966 "A Reputation Test of Personality Integration." Journal of Personality and Social Psychology, 3, 516-524.

Edwards, A. L.

1953 "The Relationship Between the Judged Desirability of a Trait and the Probability That the Trait Will be Endorsed." Journal of Applied Psychology, 37, 90-93.

Ellul, Jacques.

1964 The Technological Society. New York: Alfred A. Knopf, Inc.

English, H. B., and Ava C. English.

1958 A Comprehensive Dictionary of Psychological and Psychoanalytical Terms. New York: Longmans, Green.

Engel, Mary.

1956 "The Stability of the Self Concept in Adolescence." (Unpublished Doctoral Dissertation, George Peabody College.)

Erkikson, E.

1950 Childhood and Society. New York: W. W. Norton.

Etzioni, Amitoi, and Eva Etzioni (ed.).

1964 Social Change. New York: Basic Books, Inc.

Fink, Martin B.

1962 "Self-Concept as it Relates to Academic Under-Achievement." California Journal of Educational Research, XIII (March), 57-62.

Firth, Raymond.

1951 Elements of Social Organization. London: Watts and Co.

Fitts, William H.

1965a Manual: Tennesee Self Concept Scale. Nashville: Counselor Recording and Tests.

Fitts, William H.

1965b Tennessee Self Concept Scale. Nashville: Mental Health Research Center.

1965c The Experience of Psychotherapy: What It Is Like For Client and Therapist. Princeton: D. van Nostrand.

1970 Interpersonal: Competence: The Wheel Model. Nashville: Dede Wallace Center.

Fitts, William H., and William T. Hamner.

1969 The Self Concept and Delinquency. Nashville: Nashville Mental Health Center.

Fitts, William H., et al.

1971 The Self-Concept and Self-Actualization. Nashville: Dede Wallace Center.

Freud, Sigmund.

1950 The Ego and the Id. London: Hogarth Press.

Fromm, E.

1939 "Selfishness and Self-Love." Psychiatry, 2, 507-523.

Gividen, G. M.

1959 "Stress in Airborne Training as Related to the Self-Concept, Motivation, and Biographical Factors." (Unpublished Master's Thesis, Vanderbilt University.)

Guardo, Carol J.

1969 "Sociometric Status and Self-Concept in Sixth Graders." Journal of Educational Research, LXII, 320-322.

Guilford, Joy Paul.

1965 Fundamentals of Statistics in Psychology and Education. New York: McGraw-Hill Book Co.

Hall, J. D.

1964 "An Investigation of Acquiescence Response Set, Extraversion, and Locus of Control as Related to Neuroticism and Maladjustment." (Unpublished Doctoral Dissertation, George Peabody College.)

Hamner, William T.

1968 The Self Concept of Delinquents. Mental Health Center Research Bulletin Number 3. Nashville: Mental Health Research Center.

Harmon, D. K., M. Masuda, and T. H. Holmes.

1970 "The Social Readjustment Rating Scale: A Cross-Cultural Study of Western Europeans and Americans. Journal of Psychosomatic Research, 14, 391.

Hathaway, S. R., and J. C. McKinley.

1951 Minnesota Multiphasic Personality Inventory, Rev. manual. New York: The Psychological Corp.

Havener, P. H., and C. E. Izard.

1962 "Unrealistic Self-enhancement in Paranoid Schizophrenics." Journal of Consulting Psychology, 26, 65-68.

Helbig, I.

1967 "Behavioral, Self-Concept, and Physical Indices in the Mental Disorders." (Unpublished Doctoral Dissertation, Purdue University.)

Holmes, T. S., and T. H. Holmes.

1970 "Short-term Intrusions Into the Life Style Routing." Journal of Psychosomatic Research, 14, 121.

Holmes, T. H., and Minoru Masuda.

1970 "Life Change and Illness Susceptibility." Presented at the Annual Meeting of the American Association for the Advancement of Science, Chicago, Illinois, December 26-30.

Holmes, T. H., and R. H. Rahe.

1967a "The Social Readjustment Rating Scale." Journal of Psychosomatic Research, 11, 219.

1967b The Schedule of Recent Experience. Seattle: University of Washington.

Holmes, T. S.

1970 "Adaptive Behavior and Health Change." (Medical Thesis, University of Washington, Seattle.)

Horney, Karen.

1937 The Neurotic Personality of Our Times. New York: Norton.

Huffman, T. B.

1964 "Relationships Between the Self-Concept and the Three Psychopathological Types." (Unpublished Master's Thesis, University of Tennessee.)

James, William.

1890 Principles of Psychology. New York: Holt, 2 vols.

Jones, John G., and Larabeth Grieneeks.

1970 "Measures of Self-Perception as Predictors of Scholastic Achievement." The Journal of Educational Research (January), 63, 210-213.

Komaroff, A. L., M. Masuda, and T. H. Holmes.

1968 "The Social Readjustment Rating Scale: A Cross-Cultural Study of Western Europeans and Americans." Journal of Psychosomatic Research, 12, 121.

Landsman, T.

1968 "Positive Experience and the Beautiful Person." Presidential Address to the Southeastern Psychological Association, Roanoke, Virginia (April).

Lecky, P.

1945 Self-Consistency, A Theory of Personality. New York: Island Press.

Lefeber, J. A.

1965 "The Delinquent's Self-Concept." (Unpublished Doctoral Dissertation, University of Southern California.)

Lerbmann, Oscar B.

1953 "The Relationship of Personal and Social Adjustment to Academic Achievement in the Elementary School." (Unpublished Doctoral Dissertation, Columbia University.)

Leslie, Gerald R., Richard F. Larson, and Benjamin L. Gorman.

1973 Order and Change. New York: Oxford University Press.

Lief, A. (ed.)

1948 The Commonsense Psychiatry of Dr. Adolf Meyer. New York: McGraw-Hill Book Co.

Lundholm, H. E.

1940 "Reflections Upon the Nature of the Psychological Self." Psychological Review, 47, 110-127.

Lynch, S.

1968 "Intense Human Experience: Its Relationship to Openness and Self Concept." (Unpublished Doctoral Dissertation, University of Florida.)

Lynd, Helen.

1958 On Shame and the Sense of Identity. New York: Harcourt Brace.

Martindale, Don.

1960 The Nature and Types of Sociological Theory. Boston: Houghton Mifflin Company.

Maslow, A. H.

1954 Motivation and Personality. New York: Harper.

Masuda, M., and T. H. Holmes.

1967 "The Social Readjustment Rating Scale: A Cross Cultural Study of Japanese and Americans." Journal of Psychosomatic Research, 11, 227.

McClain, Alan.

1970 "The Effect of Group Counseling Upon the Self-Concept of Disabled Readers at the Elementary School Level." (Unpublished Doctoral Dissertation, Oklahoma State University.)

McClelland, D. C.

1951 Personality. New York: William Sloane.

McFern, A. R.

1968 "The Self Concept: A Cross Validational Study of Institutionalized Emotionally Disturbed Adolescents." (Unpublished Master's Thesis, Butler University.)

Mead, George Herbert.

1934 Mind, Self and Society. Chicago: University of Chicago Press.

Miller, Clifford Dean.

1963 "An Exploratory Investigation of Self-Concepts of High-Achieving, Average-Achieving, and Low-Achieving Groups of Junior High Pupils as Perceived by the Pupils and Their Teachers." (Unpublished Doctoral Dissertation, University of Colorado.)

Miller, K. S., and P. Worchel.

1956 "The Effects of Need-Achievement and Self-Ideal Discrepancy on Performance Under Stress." Journal of Personality, 25, 176-190.

Montague, Ashley.

1962 The Humanization of Man. New York: Grove Press.

Moore, Wibert E.

1960 "A Reconsideration of Theories of Social Change." American Sociological Review, Vol. 25 (December), 810-818.

Mumford, Lewis.

1934 Technics and Civilization. New York: Harcourt, Brace and Company, Inc.

1967 The Myth of the Machine: Technics and Human Development. New York: Harcourt, Brace, Jovanovich, Inc.

1970 The Myth of the Machine: The Pentagon of Power. New York: Harcourt, Brace, Jovanovich, Inc.

Nowka, Roberta.

1971 "An Analysis of Achievement and Self-Concept Scores of the Seventh and Eighth Grade Students at the Concho School." (Unpublished Doctoral Dissertation, Oklahoma State University).

Nunnelly, K. G.

1968 "The Use of Multiple Therapy in Group Counseling and Psychotherapy." (Doctoral Dissertation, Michigan State University.)

Ogburn, W. F.

1922 Social Change. New York: Huebsch & Co.

Parsons, Tolcott.

1961 "Some Considerations on the Theory of Social Change." Rural Sociology, XXVI, No. 3, 219-239.

Piety, K. R.

1958 "The Role of Defense in Reporting on the Self-Concept." (Unpublished Doctoral Dissertation, Vanderbilt University.)

Puttick, W. H.

1964 "A Factor Analytic Study of Positive Modes of Experiencing and Behaving in a Teacher College Population." (Unpublished Doctoral Dissertation, University of Florida.)

Rahe, R. H.

1968 "Life Change Measurement as a Predictor of Illness." Proc. Royal Society of Medicine, 61, 1124 (Section of Psychiatry, pp. 44-45).

1969 "Multi-cultural Correlations of Life Change Scaling: America, Japan, Denmark, and Sweden." Journal of Psychosomatic Research, 13, 191.

Rahe, R. H., and T. H. Holmes.

n.d. "Life Crisis and Disease Onset: A Prospective Study of Life Crises and Health Changes." (In preparation.)

n.d. "Life Crisis and Disease Onset: Qualitative and Quantitative Definition on the Life Crisis and Its Association With Health Change. (In preparation.)

Rahe, R. H., J. L. Mahan, and R. J. Arthur.

1970 "Prediction of Near-Future Health Change from Subjects' Preceding Life Changes." Journal of Psychosomatic Research, 14, 401.

Reeder, T. A.

1955 "A Study of Some Relationships Between Level of Self-Concept, Academic Achievement and Classroom Adjustment." Dissertation Abstracts, 15, 2472.

Reich, Charles A.

1970 The Greening of America. New York: Random House.

Reisman, David.

1961 The Lonely Crowd. New Haven: Yale University Press.

Rogers, Carl.

1951 Client-Centered Therapy. Boston: Houghton Mifflin.

Rogers, Carl.

1969 "Interpersonal Relationships: U. S. A. 2000." Convergence, II, 3, 40-46.

Roszak, Theodore.

1969 The Making of a Counter Culture. Garden City, New York: Doubleday and Co., Inc.

Rubin, R. T., E. K. E. Gunderson, and R. J. Arthur.

1969 "Life Stress and Illness Patterns in the U. S. Navy III. Prior Life Change and Illness Onset in an Attack Carrier's Crew." A.M.A. Arch. Environ. Health, 19, 753.

Sarbin, T. R., and N. L. Farberow.

1952 "Contributions to Role-taking Theory: A Clinical Study of Self and Role." Journal of Abnormal and Social Psychology, 47, 117-125.

Schmuck, R. A., M. B. Luszki, and D. C. Epperson.

1965 "Interpersonal Relations and Mental Health in the Classroom." Emotional Disturbances and School Learning. Eds. D. H. Clark and G. S. Lesser. Chicago: Science Research Associates.

Schneider, Kenneth T.

1968 Destiny of Change. New York: Holt, Rinehart and Winston, Inc.

Sears, P. S.

1957 "Problems in the Investigation of Achievement and Self-Esteem Motivation," in M. R. Jones (ed.), Nebraska Symposium on Motivation, 1957. Lincoln: University of Nebraska Press.

Seeman, J.

1966 "Personality Integration in College Women." Journal of Personality and Social Psychology, 4(1), 91-93.

Seppa, M. T.

n.d. "The Social Readjustment Rating Scale: A Comparative Study of Salvadorans, Spanish, and Americans. (In preparation.)

Snygg, D., and A. W. Combes.

1949 Individual Behavior. New York: Harper.

Sorokin, Pitirim.

1947 Society, Culture and Personality. New York: Harper and Brothers.

Spache, G.

1949 "The Learner's Concept of Self." American Council on Education Studies, 13, 97-99.

Spicer, Edward Holland.

1952 Human Problems in Technological Change. New York: Russel Sage Foundation.

Stewart, Julian H. (ed.)

1967 Contemporary Change in Traditional Societies. Urbana: University of Illinois Press.

Sullivan, H. S.

1947 Conceptions of Modern Psychiatry. Washington: William Alanson White Foundation.

Sundby, E. W.

1962 "A Study of Personality and Social Variables Related to Conformity Behavior." (Unpublished Doctoral Dissertation, Vanderbilt University.)

Symonds, P. M.

1951 The Ego and the Self. New York: Appleton.

Taylor, D. M.

1953 "Consistency of the Self Concept." (Unpublished Doctoral Dissertation, Vanderbilt University.)

Tiegland, J. T., et al.

1966 "Some Concomitants of Underachievement at the Elementary School Level." Personnel and Guidance Journal, 44, 951-955.

Toffler, Alvin.

1970 Future Shock. New York: Random House, Inc.

Van Til, William.

1971 Curriculum: Quest for Relevance. Boston: Houghton Mifflin Company.

Vargas, R.

1968 "A Study of Certain Personality Characteristics of Male College Students Who Report Frequent Positive Experiencing and Behaving." (Unpublished Doctoral Dissertation, University of Florida.)

Walsh, A. M.

1956 Self-Concepts of Bright Boys With Learning Difficulties. New York: Bureau of Publications, Teachers College, Columbia University.

Wayne, S. R.

1963 "The Relation of Self-Esteem to Indices of Perceived and Behavioral Hostility." (Unpublished Doctoral Dissertation, Vanderbilt University.)

Williams, Robert L., and Spurgeon Cole.

1968 "Self-Concept and School Adjustment." Personnel and Guidance Journal, XLXI (January), 478-481.

Wolff, H. C., S. Wold, and C. C. Have (ed.).

1950 "Life Stress and Bodily Disease." Res. Publs. Ass. Res. Nev. Ment. Dis., Vol. 29. Baltimore: Williams and Wilkins.

Wylie, Ruth C.

1961 The Self Concept. Lincoln: University of Nebraska Press.

APPENDIX A

LIFE EVENT RECORD

USE STAMP

NAME

PARENTS
ADDRESS

FOR OFFICE USE ONLY				
	Preschool	Elementary	Junior High	Senior High
( )Beginning nursery school, 1st grade, 7th grade, or high school	42	46	45	42
( )Change to a different school	33	46	52	56
( )Birth or adoption of a brother or sister	50	50	50	50
( )Brother or sister leaving home	39	36	33	37
( )Hospitalization of brother or sister	37	41	44	41
( )Death of brother or sister	59	68	71	68
( )Change of father's occupation requiring increased absence from home	36	45	42	38
( )Loss of job by a parent	23	38	48	46
( )Marital separation of parents	74	78	77	69
( )Divorce of parents	78	84	84	77
( )Hospitalization of parent (serious illness)	51	55	54	55
( )Death of a parent	89	91	94	87
( )Death of a grandparent	30	38	35	36
( )Marriage of parent to stepparent	62	65	63	63
( )Jail sentence of parent for 30 days or less	34	44	50	53
( )Jail sentence of parent for 1 year or more	67	67	76	75
( )Addition of third adult to family (e.g. grandparent, etc.)	39	41	34	34
( )Change in parents' financial status	21	29	40	45
( )Mother beginning to work	47	44	36	26
( )Decrease in number of arguments between parents	21	25	29	27
( )Increase in number of arguments between parents	44	51	48	46
( )Decrease in number of arguments with parents	22	27	29	26
( )Increase in number of arguments with parents	39	47	46	47
( )Discovery of being an adopted child	33	52	70	64
( )Acquiring a visible deformity	52	69	83	81
( )Having a visible congenital deformity	39	60	70	62
( )Hospitalization of yourself (child)	59	62	59	58
( )Change in acceptance by peers	38	51	68	67
( )Outstanding personal achievement	23	39	45	46
( )Death of a close friend (child's friend)	38	53	65	63
( )Failure of a year in school		57	62	56
( )Suspension from school		46	54	50
( )Pregnancy in unwed teenage sister		36	60	64
( )Becoming involved with drugs or alcohol		61	70	76
( )Becoming a full fledged member of a church/synagogue		25	28	31
( )Not making an extracurricular activity you wanted to be involved in (i.e. athletic team, band, etc.)			49	55
( )Breaking up with a boyfriend or girlfriend			47	53
( )Beginning to date			55	51
( )Fathering an unwed pregnancy			76	77
( )Unwed pregnancy			95	92
( )Being accepted at a college of your choice				43
( )Getting married				101
TOTAL				

LIFE EVENT RECORD

Please check which of the following events happened to your child in the past year,

LIFE EVENT RECORD FOR SENIOR HIGH
SCHOOL STUDENTS

Please check which of the following events happened to you in the past year.

( ) Beginning high school.
( ) Change to a different school.
( ) Birth or adoption of a brother or sister.
( ) Brother or sister leaving home.
( ) Hospitalization of brother or sister.
( ) Death of brother or sister.
( ) Change of father's occupation requiring increased absence from home.
( ) Loss of job by a parent.
( ) Marital separation of parents.
( ) Divorce of parents.
( ) Hospitalization of parent (serious illness).
( ) Death of a parent.
( ) Death of a grandparent.
( ) Marriage of parent to stepparent.
( ) Jail sentence of parent for 30 days or less.
( ) Jail sentence of parent for 1 year or more.
( ) Addition of third adult to family (e.g. grandparent, etc.).
( ) Change in parent's financial status.
( ) Mother beginning to work.
( ) Decrease in number of arguments between parents.
( ) Increase in number of arguments between parents.
( ) Decrease in number of arguments with parents.
( ) Increase in number of arguments with parents.
( ) Discovery of being an adopted child.
( ) Acquiring a visible deformity.
( ) Having a visible congenital deformity.
( ) Hospitalization of yourself.
( ) Change in acceptance by peers.
( ) Outstanding personal achievement.
( ) Death of a close friend.
( ) Failure of a year in school.
( ) Suspension from school.
( ) Pregnancy in unwed teenage sister.
( ) Becoming involved with drugs or alcohol.
( ) Becoming a full fledged member of a church/synagogue.
( ) Not making an extracurricular activity you wanted to be involved in (i.e. athletic team, band, etc.).
( ) Breaking up with a boyfriend or girlfriend.
( ) Beginning to date.
( ) Fathering an unwed pregnancy.
( ) Unwed pregnancy.
( ) Being accepted at a college of your choice.
( ) Getting married.

APPENDIX B

SOCIAL READJUSTMENT RATING QUESTIONNAIRE

PRESCHOOL AGE GROUP

Events		Values
1.	Birth of a brother or sister.	500
2.	Decrease in number of arguments between parents.	[illegible]
3.	Beginning nursery school.	[illegible]
4.	Serious illness requiring hospitalization of parent.	[illegible]
5.	Increase in number of arguments between parents.	[illegible]
6.	Loss of job by a parent.	[illegible]
7.	Having a visible congenital deformity.	[illegible]
8.	Change in child's acceptance by peers.	[illegible]
9.	Decrease in number of arguments with parents.	[illegible]
10.	Change to a new nursery school.	[illegible]
11.	Increase in number of arguments with parents.	[illegible]
12.	Change in father's occupation requiring increased absence from home.	[illegible]
13.	Outstanding personal achievement.	[illegible]
14.	Serious illness requiring hospitalization of child.	[illegible]
15.	Divorce of parents.	[illegible]
16.	Marital separation of parents.	[illegible]
17.	Jail sentence of parents for 1 year or more.	[illegible]
18.	Marriage of parent to stepparent.	[illegible]
19.	Addition of third adult to family (i.e. grandparent, etc.).	[illegible]
20.	Death of a brother or sister.	[illegible]
21.	Change in parents' financial status.	[illegible]
22.	Discovery of being an adopted child.	[illegible]
23.	Death of a grandparent.	[illegible]
24.	Mother beginning to work.	[illegible]
25.	Death of a close friend.	[illegible]
26.	Serious illness requiring hospitalization of brother or sister.	[illegible]
27.	Death of a parent.	[illegible]
28.	Brother or sister leaving home.	[illegible]
29.	Acquiring a visible deformity.	[illegible]
30.	Jail sentence of parent for 30 days or less.	[illegible]

ELEMENTARY SCHOOL AGE GROUP

Events		Values
1.	Birth of a brother or sister.	500
2.	Death of a parent.	[illegible]
3.	Mother beginning to work.	[illegible]
4.	Change in child's acceptance by peers.	[illegible]
5.	Serious illness requiring hospitalization of brother or sister.	[illegible]
6.	Jail sentence of parent for 1 year or more.	[illegible]
7.	Marriage of parent to stepparent.	[illegible]
8.	Addition of third adult to family (i.e. grandparent, etc.).	[illegible]
9.	Divorce of parents.	[illegible]
10.	Serious illness requiring hospitalization of child.	[illegible]
11.	Marital separation of parents.	[illegible]
12.	Increase in number of arguments between parents.	[illegible]
13.	Change in father's occupation requiring increased absence from home.	[illegible]
14.	Suspension from school.	[illegible]
15.	Increase in number of arguments with parents.	[illegible]
16.	Serious illness requiring hospitalization of parent.	[illegible]
17.	Beginning another school year (second grade, third grade, etc.).	[illegible]
18.	Discovery of being an adopted child.	[illegible]
19.	Decrease in number of arguments between parents.	[illegible]
20.	Pregnancy in unwed teenage sister.	[illegible]
21.	Move to a new school district.	[illegible]
22.	Death of a close friend.	[illegible]
23.	Decrease in number of arguments with parents.	[illegible]
24.	Becoming involved with drugs or alcohol.	[illegible]
25.	Beginning school.	[illegible]
26.	Becoming a full fledged member of a church.	[illegible]
27.	Death of a brother or sister.	[illegible]
28.	Change in parents' financial status.	[illegible]
29.	Death of a grandparent.	[illegible]
30.	Brother or sister leaving home.	[illegible]
31.	Acquiring a visible deformity.	[illegible]
32.	Outstanding personal achievement.	[illegible]
33.	Jail sentence of parent for 30 days or less.	[illegible]
34.	Loss of job by a parent.	[illegible]
35.	Having a visible congenital deformity.	[illegible]
36.	Failure of a grade in school.	[illegible]

JUNIOR HIGH SCHOOL AGE GROUP

Events		Values
1.	Birth of a brother or sister.	500
2.	Pregnancy in unwed teenage sister.	[illegible]
3.	Marital separation of parents.	[illegible]
4.	Suspension from school.	[illegible]
5.	Beginning to date.	[illegible]
6.	Serious illness requiring hospitalization of brother or sister.	[illegible]
7.	Not making an extracurricular activity he/she wanted to be involved in (i.e. athletic team, band, etc.).	[illegible]
8.	Divorce of parents.	[illegible]
9.	Death of a close friend.	[illegible]
10.	Beginning junior high school.	[illegible]
11.	Increase in number of arguments between parents.	[illegible]
12.	Serious illness requiring hospitalization of parent.	[illegible]
13.	Becoming involved with drugs or alcohol.	[illegible]
14.	Change in child's acceptance by peers.	[illegible]
15.	Failure of a grade in school.	[illegible]
16.	Unwed pregnancy of child.	[illegible]
17.	Discovery of being an adopted child.	[illegible]
18.	Jail sentence of a parent for 1 year or more.	[illegible]
19.	Death of a parent.	[illegible]
20.	Move to a new school district.	[illegible]
21.	Decrease in number of arguments between parents.	[illegible]
22.	Fathering an unwed pregnancy.	[illegible]
23.	Having a visible congenital deformity.	[illegible]
24.	Death of a brother or sister.	[illegible]
25.	Acquiring a visible deformity.	[illegible]
26.	Breaking up with a boyfriend or girlfriend.	[illegible]
27.	Decrease in number of arguments with parents.	[illegible]
28.	Increase in number of arguments with parents.	[illegible]
29.	Death of a grandparent.	[illegible]
30.	Becoming a full fledged member of a church.	[illegible]
31.	Addition of third adult to family (i.e. grandparent, etc.).	[illegible]
32.	Change in parents' financial status.	[illegible]
33.	Jail sentence of a parent for 30 days or less.	[illegible]
34.	Outstanding personal achievement.	[illegible]
35.	Change in father's occupation requiring increased absence from home.	[illegible]
36.	Mother beginning to work.	[illegible]
37.	Brother or sister leaving home.	[illegible]
38.	Marriage of parent to stepparent.	[illegible]
39.	Serious illness requiring hospitalization of child.	[illegible]
40.	Loss of job by a parent.	[illegible]

SENIOR HIGH SCHOOL AGE GROUP

Events		Values
1.	Birth of a brother or sister.	500
2.	Increase in number of arguments with parents.	[illegible]
3.	Fathering an unwed pregnancy.	[illegible]
4.	Death of a parent.	[illegible]
5.	Not making an extracurricular activity he/she wanted to be involved in (i.e. athletic team, band, etc.).	[illegible]
6.	Mother beginning to work.	[illegible]
7.	Death of a close friend.	[illegible]
8.	Suspension from school.	[illegible]
9.	Being accepted at a college of his/her choice.	[illegible]
10.	Unwed pregnancy of child.	[illegible]
11.	Pregnancy in unwed teenage sister.	[illegible]
12.	Death of a grandparent.	[illegible]
13.	Addition of third adult to family (i.e. grandparent, etc.).	[illegible]
14.	Decrease in number of arguments with parents.	[illegible]
15.	Beginning to date.	[illegible]
16.	Serious illness requiring hospitalization of brother or sister.	[illegible]
17.	Serious illness requiring hospitalization of child.	[illegible]
18.	Change in parents' financial status.	[illegible]
19.	Jail sentence of a parent for 30 days or less.	[illegible]
20.	Decrease in number of arguments between parents.	[illegible]
21.	Increase in number of arguments between parents.	[illegible]
22.	Discovery of being an adopted child.	[illegible]
23.	Marriage of parent to stepparent.	[illegible]
24.	Breaking up with a boyfriend or girlfriend.	[illegible]
25.	Having a visible congenital deformity.	[illegible]
26.	Change in father's occupation requiring increased absence from home.	[illegible]
27.	Becoming a full fledged member of a church.	[illegible]
28.	Failure of a grade in school.	[illegible]
29.	Acquiring a visible deformity.	[illegible]
30.	Getting married.	[illegible]
31.	Change in child's acceptance by peers.	[illegible]
32.	Death of a brother or sister.	[illegible]
33.	Brother or sister leaving home.	[illegible]
34.	Serious illness requiring hospitalization of parent.	[illegible]
35.	Becoming involved with drugs or alcohol.	[illegible]
36.	Divorce of parents.	[illegible]
37.	Move to a new school district.	[illegible]
38.	Outstanding personal achievement.	[illegible]
39.	Loss of job by a parent.	[illegible]
40.	Marital separation of parents.	[illegible]
41.	Beginning senior high school.	[illegible]
42.	Jail sentence of a parent for 1 year or more.	[illegible]

APPENDIX C

LIFE CHANGE UNIT VALUES

PRESCHOOL AGE GROUP

Rank	Life Event	Life Change Units
1	Death of a parent.	89
2	Divorce of parents.	78
3	Marital separation of parents.	74
4	Jail sentence of parent for 1 year or more.	67
5	Marriage of parent to stepparent.	62
6	Serious illness requiring hospitalization of child.	59
7	Death of a brother or sister.	59
8	Acquiring a visible deformity.	52
9	Serious illness requiring hospitalization of parent.	51
10	Birth of a brother or sister.	50
11	Mother beginning to work.	47
12	Increase in number of arguments between parents.	44
13	Beginning nursery school.	42
14	Addition of third adult to family (i.e. grandparent, etc.).	39
15	Brother or sister leaving home.	39
16	Having a visible congenital deformity.	39
17	Increase in number of arguments with parents.	39
18	Change in child's acceptance by peers.	38
19	Death of a close friend.	38
20	Serious illness requiring hospitalization of brother or sister.	37
21	Change in father's occupation requiring increased absence from home.	36
22	Jail sentence of parent for 30 days or less.	34
23	Discovery of being an adopted child.	33
24	Change to a new nursery school.	33
25	Death of a grandparent.	30
26	Outstanding personal achievement.	23
27	Loss of job by a parent.	23
28	Decrease in number of arguments with parents.	22
29	Decrease in number of arguments between parents.	21
30	Change in parents' financial status.	21

ELEMENTARY SCHOOL AGE GROUP

Rank	Life Event	Life Change Units
1	Death of a parent.	91
2	Divorce of parents.	84
3	Marital separation of parents.	78
4	Acquiring a visible deformity.	69
5	Death of a brother or sister.	68
6	Jail sentence of parent for 1 year or more.	67
7	Marriage of parent to stepparent.	65
8	Serious illness requiring hospitalization of child.	62
9	Becoming involved with drugs or alcohol.	61
10	Having a visible congenital deformity.	60
11	Failure of a grade in school.	57
12	Serious illness requiring hospitalization of parent.	55
13	Death of a close friend.	53
14	Discovery of being an adopted child.	52
15	Increase in number of arguments between parents.	51
16	Change in child's acceptance by peers.	51
17	Birth of a brother or sister.	50
18	Increase in number of arguments with parents.	47
19	Move to a new school district.	46
20	Beginning school.	46
21	Suspension from school.	46
22	Change in father's occupation requiring increased absence from home.	45
23	Mother beginning to work.	44
24	Jail sentence of parent for 30 days or less.	44
25	Serious illness requiring hospitalization of brother or sister.	41
26	Addition of third adult to family (i.e. grandmother, etc.).	41
27	Outstanding personal achievement.	39
28	Loss of job by a parent.	38
29	Death of a grandparent.	38
30	Brother or sister leaving home.	36
31	Pregnancy in unwed teenage sister.	36
32	Change in parents' financial status	29
33	Beginning another school year.	27
34	Decrease in number of arguments with parents.	27
35	Decrease in number of arguments between parents.	25
36	Becoming a full fledged member of a church.	25

JUNIOR HIGH SCHOOL AGE GROUP

Rank	Life Event	Life Change Units
1	Unwed pregnancy of child.	95
2	Death of a parent.	94
3	Divorce of parents.	84
4	Acquiring a visible deformity.	83
5	Marital separation of parents.	77
6	Jail sentence of parent for 1 year or more.	76
7	Fathering an unwed pregnancy.	76
8	Death of a brother or sister.	71
9	Having a visible congenital deformity.	70
10	Discovery of being an adopted child.	70
11	Becoming involved with drugs or alcohol.	70
12	Change in child's acceptance by peers.	68
13	Death of a close friend.	65
14	Marriage of parent to stepparent.	63
15	Failure of a grade in school.	62
16	Pregnancy in unwed teenage sister.	60
17	Serious illness requiring hospitalization of child.	59
18	Beginning to date.	55
19	Suspension from school.	54
20	Serious illness requiring hospitalization of parent.	54
21	Move to a new school district.	52
22	Jail sentence of parent for 30 days or less	50
23	Birth of a brother or sister.	50
24	Not making an extracurricular activity he/she wanted.	49
25	Loss of job by a parent.	48
26	Increase in number of arguments between parents.	48
27	Breaking up with a boyfriend or girlfriend.	47
28	Increase in number of arguments with parents.	46
29	Beginning Junior High School.	45
30	Outstanding personal achievement.	45
31	Serious illness requiring hospitalization of brother or sister.	44
32	Change in father's occupation requiring increased absence from home.	42
33	Change in parents' financial status.	40
34	Mother beginning to work.	36
35	Death of a grandparent.	35
36	Addition of third adult to family (i.e. grandparent, etc.).	34
37	Brother or sister leaving home.	33
38	Decrease in number of arguments between parents.	29
39	Decrease in number of arguments with parents.	29
40	Becoming a full fledged member of a church.	28

SENIOR HIGH SCHOOL AGE GROUP

Rank	Life Event	Life Change Units
1	Getting married.	101
2	Unwed pregnancy of child.	92
3	Death of a parent.	87
4	Acquiring a visible deformity.	81
5	Divorce of parents.	77
6	Fathering an unwed pregnancy.	77
7	Becoming involved with drugs or alcohol.	76
8	Jail sentence of parent for 1 year or more.	75
9	Marital separation of parents.	69
10	Death of a brother or sister.	68
11	Change in child's acceptance by peers.	67
12	Pregnancy in unwed teenage sister.	64
13	Discovery of being an adopted child.	64
14	Marriage of parent to stepparent.	63
15	Death of a close friend.	63
16	Having a visible congenital deformity.	62
17	Serious illness requiring hospitalization of child.	58
18	Failure of a grade in school.	56
19	Move to a new school district.	56
20	Not making an extracurricular activity he/she wanted.	55
21	Serious illness requiring hospitalization of parent.	55
22	Jail sentence of parent for 30 days or less.	53
23	Breaking up with a boyfriend or girlfriend.	53
24	Beginning to date.	51
25	Suspension from school.	50
26	Birth of a brother or sister.	50
27	Increase in number of arguments with parents.	47
28	Increase in number of arguments between parents.	46
29	Loss of job by a parent.	46
30	Outstanding personal achievement.	46
31	Change in parents' financial status.	45
32	Being accepted at a college of his/her choice.	43
33	Beginning senior high school.	42
34	Serious illness requiring hospitalization of brother or sister.	41
35	Change in father's occupation requiring increased absence from home.	38
36	Brother or sister leaving home.	37
37	Death of a grandparent.	36
38	Addition of third adult to family (i.e. grandparent, etc.).	34
39	Becoming a full fledged member of a church.	31
40	Decrease in number of arguments between parents.	27
41	Decrease in number of arguments with parents.	26
42	Mother beginning to work.	26

APPENDIX D

CORRELATIONS

RANK ORDER CORRELATIONS BETWEEN SPECIFIC SUBSAMPLES

Characteristics		No.	Range of Rank Order Correlations			
			Preschool	Elem.	J.H.S.	H.S.
Professions	Teachers	131				
	Pediatricians	25	0·846-0·967	0·926-0·964	0·954-0·960	0·918-0·968
	Ment. Hlth. Prof.	87				
		243				
Sex	Male	127				
	Female	115	0·941	0·983	0·986	0·975
	Unknown	1*				
		243				
Religion	Protestant	156				
	Catholic	25				
	Jewish	19				
	Atheist	28	0·885-0·933	0·911-0·957	0·934-0·976	0·924-0·980
	Other	6*				
	Unknown	9*				
		243				
Marital Status	Single	34				
	Married	195				
	Divorced	8*	0·954	0·972	0·979	0·972
	Widowed	5*				
	Unknown	1*				
		243				
Experience in direct work with children	0-9 yr	114				
	10-19 yr	78	0·941-0·969	0·891-0·960	0·970-0·983	0·965-0·978
	20+ yr	48				
		243				

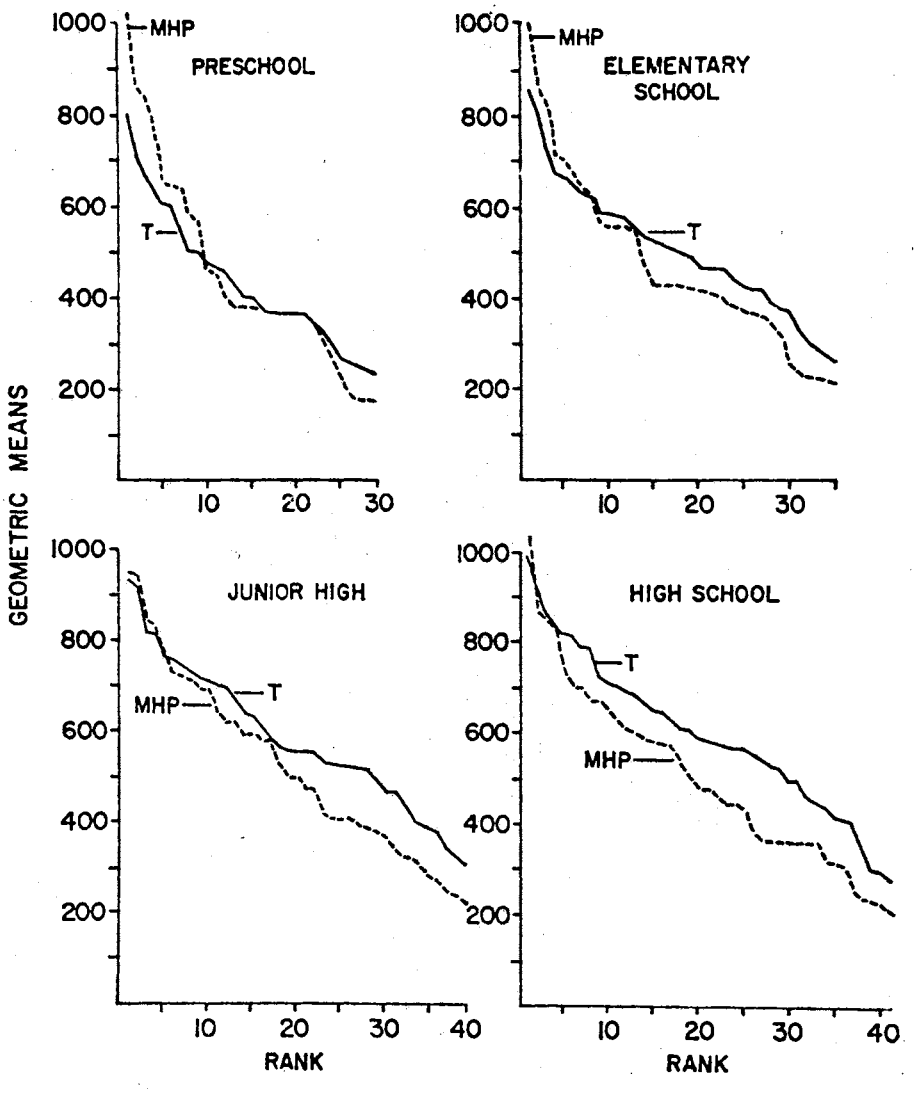
*Number too small for meaningful coefficients of correlation.

RANK ORDER CORRELATIONS BETWEEN GROUPS OF MENTAL HEALTH PROFESSIONS ARRANGED BY THEIR EXPERIENCE

Experience (yr)	0-9 (N = 47)	10-19 (N = 27)	20+ (N = 13)
	Preschool Age Group		
0-9	1	0·936	0·921
10-19		1	0·943
20+			1
	Elementary School Age		
0-9	1	0·912	0·900
10-19		1	0·928
20+			1
	Junior High School		
0-9	1	0·961	0·953
10-19		1	0·937
20+			1
	High School		
0-9	1	0·943	0·946
10-19		1	0·924
20+			1

APPENDIX E

LIFE EVENTS OF CHILDREN


GEOMETRIC MEANS
1000
800
600
400
200
MHP
PRESCHOOL
T
ELEMENTARY SCHOOL
JUNIOR HIGH
HIGH SCHOOL
10
20
30
40
RANK

APPENDIX F

SCORING PROCEDURE

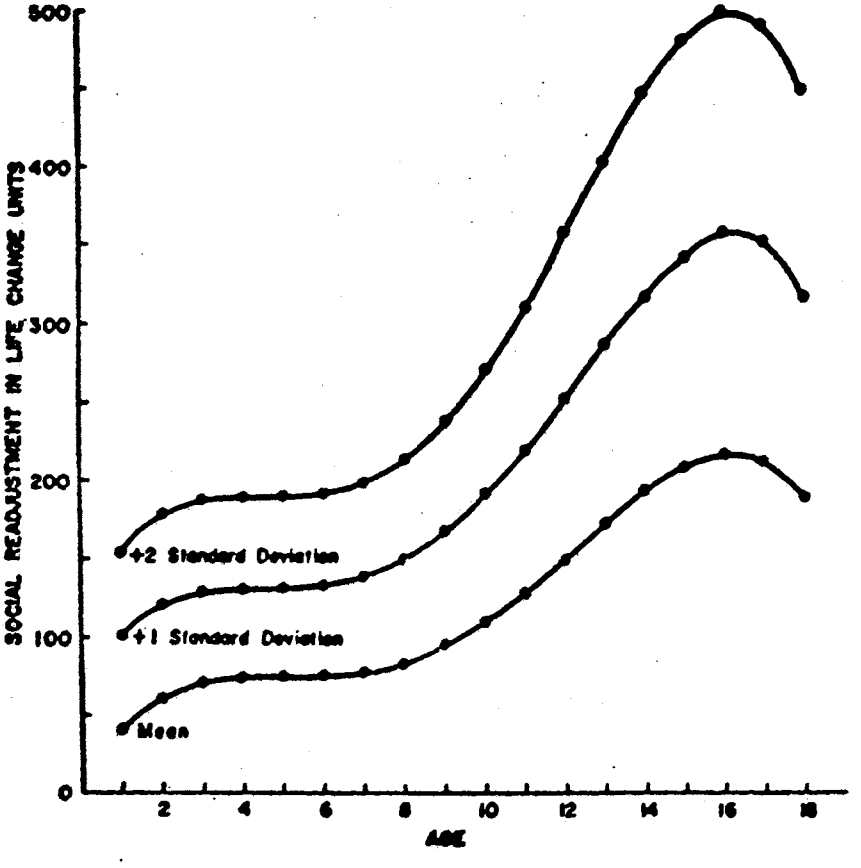
SCORING PROCEDURE

1. Four columns of figures precede the list of events on the other side. Select the proper column for this child and circle the values for the items that have been checked.

2. Add the encircled items.

3. Plot the total on the curve of a normal population.

Curve of a Normal Population



INTERPRETATION

By definition, 15.7% of the children in a normal population will have life event scores that fall above the mean plus one standard deviation. A score above this level indicates that an unusual amount of readjustment has been required of this child during the past year. Such scores can be viewed as potential pathogens which may or may not result in physical or mental disequilibrium with the environment.

High scores should serve only as a danger signal - a red flag - alerting the physician to the situation. Knowledge of the specific events can be used if appropriate.

APPENDIX G

AVERAGE NUMBER OF LIFE CHANGE UNITS

AVERAGE NUMBER OF LIFE CHANGE UNITS

	Preschool	Elementary	Junior High	Senior High	Total
By Sex:					
Male	63.78	104.16	180.93	222.66	138.29
Female	66.45	101.39	205.60	229.63	163.12
By Race:					
Black	62.97	122.55	155.70	192.81	136.90
White	65.55	98.29	210.41	252.20	155.75
By Social Class:					
Social Class 1	65.34	93.89	202.43	229.07	142.88
Social Class 2	68.63	104.61	195.18	223.86	142.91
Social Class 3	61.02	95.02	202.48	211.13	146.18
Social Class 4	62.03	107.89	181.36	232.61	146.30
Social Class 5	102.84	110.78	238.18	264.42	199.99
Unknown	34.00	124.28	197.35	221.25	185.45
By Age Group:	64.99	102.80	195.66	226.80	151.62
By Hospitalization:					
Child Hospitalized*	61.74	178.25	289.85	330.44	211.17
Child Not Hospitalized	62.77	100.92	191.45	222.29	148.66

GRAND AVERAGE NUMBER OF LIFE CHANGE UNITS = 151.62

*The number of Life Change Units for hospitalization of a child was subtracted from the average number of Life Change Units for comparison with the children that were not hospitalized.

APPENDIX H

SCORE SHEET - TENNESSEE SELF CONCEPT SCALE

SCORE SHEET

Counseling Form
Tennessee Self Concept Scale

NAME	SCHOOL GRADE	SEX M F	AGE	DATE	TIME STARTED	TIME FINISHED	TOTAL TIME

HOW THE INDIVIDUAL PERCEIVES HIMSELF

IN TERMS OF:	COLUMN A PHYSICAL SELF						COLUMN B MORAL-ETHICAL SELF						COLUMN C PERSONAL SELF						COLUMN D FAMILY SELF						COLUMN E SOCIAL SELF						SELF CRITICISM				ROW TOTALS	
ROW 1.	P-1	P-2	P-3	N-4	N-5	N-6	P-19	P-20	P-21	N-22	N-23	N-24	P-37	P-38	P-39	N-40	N-41	N-42	P-55	P-56	P-57	N-58	N-59	N-60	P-73	P-74	P-75	N-76	N-77	N-78	91	92	93	94	POSI-TIVE P	VARIA-BILITY Range of P Cell Scores
IDENTITY WHAT HE IS	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	5		
	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	4		
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	2		
	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	1		
	P ___						P ___						P ___						P ___						P ___											
ROW 2.	P-7	P-8	P-9	N-10	N-11	N-12	P-25	P-26	P-27	N-28	N-29	N-30	P-43	P-44	P-45	N-46	N-47	N-48	P-61	P-62	P-63	N-64	N-65	N-66	P-79	P-80	P-81	N-82	N-83	N-84	95	96	97	98		
SELF SATIS-FACTION HOW HE ACCEPTS HIMSELF	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	5		
	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	4		
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	2		
	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	1		
	P ___						P ___						P ___						P ___						P ___											
ROW 3.	P-13	P-14	P-15	N-16	N-17	N-18	P-31	P-32	P-33	N-34	N-35	N-36	P-49	P-50	P-51	N-52	N-53	N-54	P-67	P-68	P-69	N-70	N-71	N-72	P-85	P-86	P-87	N-88	N-89	N-90	99	100				
BEHAVIOR HOW HE ACTS	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5				
	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4				
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	SC =			
	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2	2	4	4	4	2	2				
	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1	1	5	5	5	1	1				
	P ___						P ___						P ___						P ___						P ___											
COLUMN TOTALS	TOTAL POSITIVE (ΣP ·) ___						___						___						___						___						Total Positive or P →					
	V. (Range of P Cell Scores) ___						___						___						___						___										Row Tot. V.	
																																			Col. Tot. V. →	Tot. V.

DISTRIBUTION OF RESPONSES

NUMBER OF 5's 4's 3's 2's 1's

TOTALS ___ ___ ___ ___ ___ = 100
X2 X1 X1 X2

D = ___ + ___ + ___ + ___ = ___

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