RELATIONSHIPS AMONG INDICES OF ADJUSTMENT STATUS

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RALPH HAROLD TINDALL, A.B., M.A.

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Approved by:

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RELATIONSHIPS AMONG INDICES OF ADJUSTMENT STATUS

CHAPTER I

INTRODUCTION TO THE STUDY

Those who have been in the position of having to decide whether a child, a student, or an adult is dealing effectively with his environment, have no doubt experienced a frequent frustration as to what represents adequate criteria in order to have a basis for that judgment. It is from a series of such situations that the need for formulating some more precise notions in regard to such criteria arose. It was noted many times in working with dependent children within an institutional setting, that scores on various purported adjustment measuring tests and scales varied to the extent that one seriously questioned the validity of the instruments used. It was further noted frequently that the judgments of those in direct contact with certain children were in partial or complete disagreement as to just how effectively the child was functioning. Further, in discussing adjustment, even among members of the same profession with a comparable training background, one could not help but detect a certain lack of precise agreement as to what was meant when the concept of adjustment was discussed. It became clear at the outset that

there was a definite need to explore the area of human interactions labeled "adjustment".

Whatever area of human endeavor we choose to examine, differences are demonstrated in the ways that human organisms meet the exigencies of the moment as well as in the way the same individual meets similar situations on a day-to-day basis. Both the behavior scientist and the layman evaluate the actions of others in terms of the observed efficiency of that action according to some value system. We would expect the scientist to attempt to be more impersonal and to have a clearer notion of the composition of the criteria used. We attach labels to self-behavior and other behavior that imply the existence of at least a continuum from behavior judged non-adjustive to behavior judged adjustive within a specified field of action. In relatively recent years we have sought to obtain more precise indices of the adjustive quality of the actions of the human organism. This is rightly the province of the scientist. Personality is established as a legitimate area of investigation and, though the term may still be lacking an adequate definitive status, it is not too difficult to visualize a concept of adjustment as being an attribute of personality which can be conveniently marked off for special consideration.

We have long had a global concept of intelligence which, though later reduced to more elemental factors, still serves in the form of a rather blunt instrument that has been found fruitful in distributing people along a continuum where an

overall index was needed. Further, there exists a variety of accepted measures within the professional repertory that, if the name of the instrument is given and a reasonably adequate summary of the conditions prevailing at the time of administration is reported, meaningful results may be communicated. A global concept of adjustment has fared less well. While Traxler¹ estimates that there are approximately five hundred instruments in the field purporting to measure some aspect of personality, there appears to be far less agreement as to what the results mean in terms of comparability between instruments. It would seem logical that one of the first steps taken to examine the adequacy of adjustment criteria, would be to examine existing measures and apply commonly used ones as carefully as possible to members of a selected population within a reasonably stable environmental field. These results should be comparable from instrument to instrument if they are legitimately assessing the same thing. If results vary widely from instrument to instrument, then we must re-define what we are assessing and determine the why of such discrepancies.

Wechsler² has recently suggested that intellectual ability as it is now conceptualized, is a manifestation of the whole personality. Similarly, another manifestation of the whole

¹Traxler, Arthur E., Techniques of Guidance. New York: Harper and Bros., 1945, pp. 98.

²Wechsler, David., "Cognitive, Conative, and Non-Intellective Intelligence." The Amer. Psychol., 1950, 5: 78-83.

personality could conceivably be the manifested adjustment level. If we follow the same line of thought, we frequently find that when measured ability level does not conform with the observed performance level, it is hypothesized that the degree of adjustment of the organism in question is such that the efficiency level of the individual has been reduced. If such a hypothesis is a reasonable one - and empirically it seems justifiable - then there is further reason to attempt to sharpen our concept of adjustment and critically appraise the worth of our present instruments often used to establish criteria to form the basis of judgments in this area.

We have many measures of individual performance in a variety of areas of scholastic achievement which seem to represent measurable aspects of the functioning personality that are intimately related among other things to the level of intellectual functioning, the accustomed method of attack, and the adjustment level. It has been demonstrated that the achievement level can be raised through the actual teaching of higher level skills. Robinson³ suggests that similarly it might be possible to raise the efficiency level through the teaching of higher level adjustment skills. However, prior steps to such ultimate application are: a definition of what we now mean by adjustment, the determination of communalities among measures, the development of a more precise

³Robinson, F.P., Principles and Procedures in Student Counseling. New York: Harper & Bros., 1950, p. 240.

concept of adjustment, and then the establishment of areas where such skills may be taught.

Objectives of the Present Study

In order to make a logical start in investigating adjustment criteria, it appears relevant to set up certain immediate objectives and then to foresee certain other outcomes which could grow from the attainment of the immediate objectives. Historically, we have commonly judged adjustment on the basis of immediate behavior. It is necessary to see if such an approach has reliability. Later studies will need to be devoted to the validity of such an approach.

For the present purposes, in order to stay within the scope of a single study, we arbitrarily set the problem to deal with our present concept of adjustment and a clarification based upon the agreement of authority as to what is contained in that concept. As the main purpose we propose to utilize existing representative measures of adjustment, which have been used frequently to establish criteria ratings of adjustment, and apply those measurements as carefully and as skillfully as possible to a selected population. The population to be selected, is to be so well known to the one conducting the study that it will be possible to interpret communalities or lack of communality between the existing measures on a group and an individual basis. The focus of the study is to be upon the agreement or disagreement of the

selected measures as they apply to the group and to individuals.

With this main purpose in mind and if this can be accomplished satisfactorily, it should be possible to answer some questions in regard to the appropriateness of the various measures used in establishing status of adjustment in individual cases. Further, such procedures may give leads as to the next steps possible in sharpening the concept of adjustment or even whether such a global concept is a profitable approach. With a clearer concept of adjustment, it should be possible to approach the maladjusted person with more insight into what goals may be attainable for the particular person. Perhaps such a study along with similar studies might be instrumental in suggesting new higher level adjustment skills or delineating skills already in existence which, when taught, would result in an increased efficiency level on the part of the person in his interaction with the environment.

Related Studies

The present study lays no claims to uniqueness in that such an effort to assess agreement on the part of instruments designed to measure adjustment, has not been done before. For nearly every test on the market today purporting to measure some aspect of personality related to assessing adjustive status, there have been studies made which can be classed as evaluative. For the most part these studies have compared

the results secured by the particular test in question with results secured from a few other tests purporting to measure the same thing but with longer standing acceptability, with the judgments of experts, or with some related criteria such as school grades, clinic visitations, self-report of status, etc. None of these evaluative studies have compared more than a few measures of adjustive status on the same population. In many instances the results have been disappointing when applied to individual prognosis but have in some instances been encouraging when applied to differentiating between groups (i.e. delinquents vs. non-delinquents).

There have been a variety of approaches and numerous variations within approaches to the problem of measuring adjustment. In his section on Character and Personality, Buros⁴ includes a number of such instruments with representative bibliographies of studies testing their validities. The various approaches to measurement of adjustment lend themselves to a variety of classificatory schemes of which Greene, Jorgensen, and Gerberich's⁵ may be considered representative. They include (1) free association, (2) direct observation, (3) the approach through rating scales, (4) and the approach through personal reports. As varieties subsumed under free association may be included such instruments as the Rorschach, word association, incompleted sentences, Thematic Appercep-

⁴Buros, O.K., The Third Mental Measurements Yearbook. New Jersey: Rutger's Press, 1949.

⁵Greene, H.A., Jorgensen, A.N., and Gerberich, J.R., Measurement and Evaluation in the Secondary School. New York: Longmans, Green and Co., 1946, pp. 247.

tion Test and other picture associations, finger painting and other creative techniques. Within the category of direct observation may be included specified directed observation, anecdotal reports, behavior counts, time samples of behavior, and situational analyses. Rating scales include a variety of schemes used by judges to categorize or place the person judged along a continuum in regard to a specified dimension. As variations of the personal report category one can consider such means of appraisal as questionnaires, inventories, sociometric choices, self ratings, and interview responses.

As has been intimated, most of the studies to date have been concerned with one or two of these approaches as applied to the same population. The results of comparison between instruments, even though using the same approach, have oftentimes not been too encouraging. Ellis⁶ made a survey of the validation studies in the field of personality questionnaires which summed up the attempts to validate results secured from these instruments against groups with known histories of delinquency, against delinquency diagnoses, against psychiatric or psychological diagnoses, against ratings made by teachers, friends or associates, and against similar personality questionnaires. Out of a grand total of 259 investigations surveyed, 80 were positive, 44 questionably positive, and 135 negative or mainly negative. He arrives at the following general conclusion:

⁶Ellis, Albert. "The Validity of Personality Questionnaires", Psychol. Bull., 1946, 43: 385-440.

. . . . judging from the validity studies on group-administered personality questionnaires thus far reported in the literature, there is at best one chance in two that these tests will validly discriminate between groups of adjusted and maladjusted individuals, and there is little indication that they can be safely used to diagnose individual cases or to give valid estimations of the⁷ personality traits of specific respondents.

To attempt to cite all of the studies which have been made in an attempt to validate the numerous instruments purporting to assess adjustment level, would be a monumental task and represent an historical summation beyond the purposes of the present study. For present purposes it was felt to be more useful to go through the literature and select what were judged better studies from a representative sampling of typical approaches to the problem. Citing several of these studies appears more fruitful than an historical enumeration.

Blair and Clark⁸ compared the results secured on 382 Ninth Grade pupils using the Multiple Choice Rorschach and the California Test of Personality and secured a biserial r of $.22 \pm .03$ when total scores were compared. Bonney⁹ using

⁷Ellis, op. cit., p. 425.

⁸Blair, G.M., and Clark, R.W., "Personality Adjustments of Ninth Grade Pupils as Measured by the Multiple Choice Rorschach Test and the California Test of Personality." Educ. Psychol., 1946, 37: 13-20.

⁹Bonney, Merl.E., "The Constancy of Sociometric Scores and Their Relationships to Teacher Judgments of Social Success and Personality Self-Ratings." Sociometry, 1943, 6: 409-424.

a Fourth Grade population compared the results secured from the California Test of Personality and sociometric scores and got a correlation coefficient of $.49 \pm .06$. Jackson¹⁰ using 100 high school pupils compared the results secured from the California Test of Personality, Woody Student Inquiry Blank, interviews and ratings by experts, teachers, and parents. He found an average correlation of .30 when all of the measures had been reduced to a five point scale. Peters¹¹ compared the results secured from the Bell, Link, and Bernreuter inventories with scores derived from descriptions of persons ranking high and low on nine personality traits. He found validity correlations from $-.078$ to $+.503$ with an average of $+.26$. Sanford¹² in an extensive study used observation procedures, interviews, tests of sentiments and interests, and a memory of failures test. He analyzed those techniques lending themselves to it according to Murray's Needs and Press Theory and correlated with overt behavior. He found more positive correlations than could be accounted for by chance but ranging from $-.44$ to $+.41$. Spinnelle and Nemzik¹³ utilizing all of the 7B girls in a junior high school,

¹⁰Jackson, J., "The Relative Effectiveness of Paper Pencil Test, Interview, and Ratings as Techniques for Personality Evaluation." Soc. Psychol., 1946, 23: 35-54.

¹¹Peters, C.C. "Validity of Personality Inventories Studied by a 'Guess Who' Technique." Psychol. Bull., 1940, 37-453.

¹²Sanford, R.N. et al. Physique, Personality and Scholarship. Monograph of the Society for Research in Child Development, 1943, Vol. VIII, No. I: 125-361.

¹³Spinnelle, Leo and Nemzik, Claude L. "The Relationship of Personality Test Scores to School Marks and Intelligence Quotients." Soc. Psychol., 1944, 20: 289-294.

determined the correlation between I.Q.'s, C.A.'s, personality test scores as measured by the Link Inventory, and honor point averages based on teachers' marks. They found correlation coefficients with the personality test scores ranging from $-.19$ to $+.38$. The literature contains many other such correlation studies but these seem to be better examples of the type of study related to the present one. With few exceptions such as that of Sanford¹⁴ who worked within a particular frame of reference (i.e. Murray's Need and Press Theory) these studies have been content with limiting themselves to a comparison of only a few criteria of adjustment as applied to the specific population.

Two other studies may be cited where correlation methods were not used but where an attempt was made to compare several different approaches to the measurement of adjustment. Feder and Baer¹⁵ compared the results secured from the Bernreuter Inventory and overt behavior as recorded in the files of the office of the Dean of Women for 81 University of Iowa girls. They found that the Inventory was considerably more dependable for the discovery of the maladjusted student than

¹⁴Sanford, op. cit.,

¹⁵Feder, D.D., and Baer, Opal L. "A Comparison of Test Records and Clinical Evaluations of Personality Adjustment." Educ. Psychol., 1941, 32: 133-144.

the behavior record. Darley¹⁶ utilizing the Minnesota Scale for Survey of Opinions, The Adjustment Inventory, and the Minnesota Inventories of Social Attitudes on over 500 University of Minnesota students, concluded that the use of such scales would provide clues in 30 to 40 percent of the cases of maladjustment. He further stated that the use of such instruments in a large scale personnel program were warranted on this basis.

The present study is not designed to repeat and verify the findings of other similar studies primarily. It is hoped that a selective representation of the varied approaches have been chosen which will enable a more thorough comparison between measures within a particular category of approaches and between the various approaches. For the first time a careful comparison of representative methods has been made in an attempt to note general validity of existing methods. Such a comparison should provide suggestions for new approaches to the assessment of adjustment status.

Proposed Approach

In the ensuing chapters this study will deal first with the synthesis of the concept of adjustment as it now seems to be understood by those who have written about the problem. In Chapter II mention will also be made of commonly recog-

¹⁶Darley, John G., "Tested Maladjustment Related to Clinically Diagnosed Maladjustment." Appl. Psychol., 1937, 21: 632-642.

nized adjustive mechanisms. This formulation will serve to orient and to serve as a frame of reference for the study.

In Chapter III an attempt will be made to set apart the group of adolescent boys used as subjects in this study. The detailed presentation of the characteristics of this group need to be set forth so that proper interpretation of the data can be made. Such a description should also act as a safeguard for any tendency to go beyond the data in any generalizations the reader may make upon examination of those data. Chapter IV will describe the general design of the study and attempt to show the rationale behind the selection of the various instruments used. It will also detail the exact procedure used in securing the data.

A concrete presentation using figures and tables as much as possible of the data secured will be attempted in Chapter V. The data, with possible implications and generalizations will also be discussed in this Chapter.

In Chapter VI, illustrative cases will be outlined with a tracing through in detail of individual scores on the various instruments. These data will be supplemented with case history background. It is hoped some basis for individual discrepancy or agreement on the various instruments may be shown. In the concluding Chapter a summary of the study as well as a looking ahead to some of the necessary next steps in dealing with the concept of adjustment will be presented.

CHAPTER II

A CONCEPT OF ADJUSTMENT

The Process of Adjustment

Nearly every textbook of general, educational, social, child, adolescent and clinical psychology contains some reference to the concept of adjustment. Before an attempt is made to measure adjustment, it is necessary to take some time to try to summarize present thinking in regard to this concept and to arrive at some definite point of view as a guide to the use and interpretation of the criteria we propose to use. After some examination of the available material in the field, it seems logical to deal with this concept by discussing the process of adjustment itself, by examining agreed-upon aspects or facets of adjustment, by considering recognized adjustive mechanisms and finally recognizing the difficulties of the measurement problem.

There seems to be major agreement among various writers that adjustment must be considered as a process -- an on-going, dynamic kind of behavior -- which in the complex human organism begins with conception and ends at death. It is not a static state that can be reached and stabilized by

the organism. Rather each time a state of balance is approached, there are new conditions set up necessitating adjustive behavior by the organism. Dysinger¹ calls attention to the progressive nature of adjustment. Morgan² states that adjustment is a dynamic process not a static condition. Richards³ says that the modern clinician thinks of the human being in a constant state of adjustment and re-adjustment. Traxler⁴ states that a concept of adjustment as the persistence of a state of perfect satisfaction and happiness is undesirable. Krech and Crutchfield⁵ describe adjustment in terms of everchanging forces within the psychological field where reaching one goal brings about a reorientation of the psychological field so that new tensions and instability are possible. Fenton⁶ discusses a

¹Dysinger, D. W. "Signs of Personality Disintegration". (In) Pennington, L. A., and Berg, I. A. An Introduction to Clinical Psychology. New York: Ronald Press, 1948, p. 51.

²Morgan, John B. The Psychology of the Unadjusted School Child. New York: The Macmillan Co., 1937, p. 9.

³Richards, W. T. Modern Clinical Psychology. New York: McGraw-Hill Book Co., 1946, p. 15.

⁴Traxler, Arthur E. Techniques of Guidance. New York: Harper & Bros., 1945, p. 335.

⁵Krech, David, and Crutchfield, R. S. Theory and Problems of Social Psychology. New York: McGraw-Hill Book Co., Inc., 1948, p. 41.

⁶Fenton, Norman. Mental Hygiene in School Practice. Stanford: Stanford University Press, 1943, p. 107.

child's personality as an active dynamic process. Gates and others⁷ state that adjustment has two meanings,

In one sense it is a continued process by which a person varies his behavior to produce a more harmonious relationship between himself and his environment. . . . In another sense adjustment is a state, i.e., the condition of harmony arrived at by a person whom we call 'well adjusted'.

If, then, we accept the proposition that adjustment must be considered as a process, what is the nature of this process? We find a number of experts agreeing upon a somewhat basic description of the process which stems from the explanation of adjustive behavior proposed by Dashiell⁸ some years ago and follows his schematic diagram.

(1) may be described as some form of motivated activity, (2) an obstacle of some sort which serves to thwart the direct satisfaction of the motivated activity, (3) the varied responses made by the organism when satisfaction of the motivating conditions are not immediately forthcoming, (4) the solution response, (5) the attainment of the goal as measured by the reduction of the motivated activity.

⁷Gates, A. J., Jersild, H. T., McConnell, T. R., and Challman, R. C. Educational Psychology. New York: Macmillan Co., 1949, p. 614.

⁸Dashiell, J. F. Fundamentals of General Psychology. Chicago: Houghton-Mifflin Co., 1937, p. 35.

Behavior in a complex organism like the human being is seldom as simple as the schematic presentation would lead one to believe. Further, opinion varies as to the exact nature of need arousal, thwarting, varied behavior, goal attainment, and tension reduction, but there seems to be agreement among various authorities as to the basic description of the process itself which is fundamental to any explanation of behavior in terms of observable antecedent behavior and subsequent outcomes in behavioral terms.

It is, therefore, necessary to examine in some detail the components of the process realizing that the process operates as a dynamic system and that any segmentation of that system is real only for the purpose of convenience in discussion. Any discussion of a segment of behavior must be thought of in terms of the process itself.

What is the nature of the motivated activity? What sets off the action system of the organism and serves to direct it? Shaffer⁹ includes under the motivating activity of the organism, such conditions as organic tension arising from states of hunger, thirst, sex deprivation, air-getting needs, eliminative tensions, and glandular conditions; persisting stimuli from the external environment requiring an adjustive response; and motives further removed from immediate internal or external environmental pressures such

⁹Shaffer, L. F. The Psychology of Adjustment. Chicago: Houghton-Mifflin Co., 1936, p. 111.

as reside in the past habit systems and experiences of the organism. Morgan¹⁰ speaks of certain levels of adjustment and implies that the motivating activities of the organism spring from the needs of the organism to make an adjustment at the physical level, to make certain physical adjustments in the interest of self-preservation; at the biochemical level, glandular secretions, hormonal secretions, building up of wastes and poisons and reactions to infectious bacteria; at the emotional level, the use of the autonomic system in times of emergency with concomitant feelings; at the cerebral cortex level, which stems from the conscious thought processes which have accompanied activity in the past and may set off activity patterns at the moment; at the socio-moral level, which includes need for adjustment arising from the interaction of the organism with other similar organisms. Gates¹¹ and others propose a need of the organism as being responsible for the motivating state and subsume under the concept of need drives, impulses, goal sets, urges, motives, cravings, wants, desires, and wishes. They describe needs in the statements below.

- (1) The degree of tension corresponds to the strength of the need -- the weaker the need the less the tension, the stronger the need the greater the tension.
- (2) When a need is latent,

¹⁰Morgan, John J. B. The Psychology of Abnormal People. New York: Longmans, Green & Co., 1948, pp. 42-43.

¹¹Gates, J. J. and others. Op. cit. p. 620.

the person is not consciously aware of its existence but thought processes are likely to be influenced by the need as tension increases. (3) After the tension reaches a certain stage of intensity (potential state), it is experienced as unpleasant, and its unpleasantness increases with increasing tension. (4) When a need reaches the active stage, the person engages in activity directed toward the goal (if the goal is known), or is spurred to decrease the intensity of the need in some way. (If needs are anticipated by others and supplied to the person, the need may never become conscious). (5) When the goal is reached, the tension is discharged and the need loses its power to impel activity. The tension discharge is experienced as pleasant.

Krech and Crutchfield¹² believe that the motivating activity stems from tension which is a result of unbalance in the immediate psychological field of the individual. Symonds¹³ states that from the psychological point of view, motivation can be considered in terms of need reduction and that needs can be satisfied only by an output of energy on the part of the organism.

There seems to be adequate agreement that the adjustment process is instigated by some need of the organism whether that need be conscious or unconscious and stems from a state of tension aroused either by internal organic

¹²Krech and Crutchfield. Op. cit. p. 40.

¹³Symonds, P. M. The Dynamics of Human Adjustment. New York: Appleton-Century-Crafts, 1946, p. 4.

conditions of the organism or by external stimuli to which the organism has attached some meaning which may or may not be common to other organisms. The need may result from tension due to imbalance at a basic physiological level or may exist at a level higher in the hierarchy at a complex psychological level. All seem to agree that basic to the adjustment process is a heightened activity level of the organism. This heightened activity level results in goal seeking (conscious or unconscious) behavior on the part of the organism.

There would be no problem of adjustment if needs could be immediately satisfied, but immediate satisfaction of all needs in an orderly fashion appears out of the question in dealing with an organism as complex as the human animal whose repertory of goal-seeking behavior becomes exceedingly complex even within the first few years of life. Thwarting is inevitable which brings about heightened activity and varied response. What is the nature of the thwarting circumstances? It would seem impossible to enumerate even in the case of one individual the variety of circumstances which defined in terms of individual goal-seeking might serve as thwarting circumstances. Perhaps Shaffers¹⁴ classification, which he admits is arbitrarily determined, is as comprehensive as any proposed. He classifies the sources of obstacles under three headings: (1) environmental obstacles (2) personal defects (3) conflicts with antagonistic motives. Included in the

¹⁴Shaffer, op. cit., pp. 117-119.

environmental obstacle class are those laws and customs of society which block the immediate satisfaction of the needs of the individual organism. A simple instance might appear in the case of a man who has no money but who is very hungry. In our society it takes work at some productive task defined by society to secure money with which to buy food to satisfy the organic hunger need. If he has no money, he cannot immediately satisfy the pangs of hunger and must make some adjustive form of behavior. Also included in this category would be the actions of other people which often block the immediate satisfaction of the need. Another source of thwarting arising from the environment, is aroused when a need cannot be fulfilled because no adequate habit is available to the individual. Almost any phase of the environment can, in a complex culture, serve to facilitate or thwart at some time or another the peculiar needs of the individual in question. Within the category of personal defects which may serve to block the fulfillment of need, are included such obstacles as physical defects, mental defects, defects arising from one's social position, and defects arising from educational lacks. The recognition on the individual's part of any defects of this nature tends to arouse an adjustive response. The third category includes all those situations which are numerous in the human organism where two or more needs are competing for fulfillment but are antagonistic in nature. An example being the physiological sex need of the adolescent

which, while demanding fulfillment, is antagonistic to certain taboos of middle class culture. It would seem that almost any felt conflict situations would present an obstacle to goal satisfaction and need reduction, thus giving rise to tension which makes necessary some adjustive behavior on the part of the organism.

From birth onward the human organism operating within its environmental field in search of physical and psychological homeostasis, inevitably is thwarted. It is acknowledged that such frustrating experiences may vary on a continuum of communality as they affect members of any particular culture. It is further concluded that almost any environmental situation, using the term broadly to cover either internal or external fields of determination, may at any particular moment, varying with the needs of the organism, act as thwarting circumstances thereby increasing the need for seeking adjustive status.

When the motivated goal directed activity is confronted with an obstacle, the resulting frustration according to Mowrer¹⁵ serves to cause the organism to vary the nature of the response. These varied responses, according to Shaffer¹⁶ are likely to be responses that have been effective in similar situations in the past. These responses may or may not

¹⁵Mowrer, O.H., "What is Normal Behavior." (In) Pennington, L.A., and Berg, I.A., An Introduction to Clinical Psychology, New York: Ronald Press, 1948, p. 48.

¹⁶Shaffer, op. cit., p. 120.

be effective in reducing the tension arising from the frustrating situation. They may be of such nature to enhance further the tension and increase the frustration. Depending on several aspects, these actions may be regarded as adjustive or non-adjustive which will be discussed later. Gates and others¹⁷ have classified these varied responses as direct methods of reducing tension including direct assault, seeking another path, substitution and compromise; indirect methods including sublimation, withdrawal, and other psychological mechanisms; compensatory methods encompassing the various efforts at covering up the felt thwarting, and aggressive methods which involve inflicting injury upon the blamed obstacle or surrogates for the obstacle. However the varied responses are classified - whether overt and observable or at the symbol manipulation level, there does appear to be agreement that they do occur as a part of the adjustive process and as a result of goal directed activity meeting some kind of obstacle.

As a result of this varied activity, some solution response is eventually forthcoming which serves to reduce tension for that particular organism. Shaffer¹⁸ says that the sole criterion for the occurrence of this response is need reduction. This response may be judged in terms of whether it is adjustive or non-adjustive in character which will be clarified later when the aspects of adjustment are discussed.

¹⁷Gates and Others, op. cit., pp. 647-693.

¹⁸Shaffer, op. cit., p. 122.

It is at this point, the solution response, where judgment is usually made on an evaluative basis.

Eventually the organism attains a goal which is the culmination of the solution response. This goal may be conscious or unconscious. It may be described in evaluative terms from either the viewpoint of the individual or the viewpoint of his culture and associates. Attainment of this goal, however judged as to appropriateness or inappropriateness to the goals of society at large, does in some measure bring an approach to a state of equilibrium in the organism. This state is, however, not a defined point or period of behavior but merely a convenient point to verbalize and describe. In the process of attaining the goal, new needs and tensions are being evolved according to Krech and Crutchfield¹⁹ that now reorient the behavior of the organism and the whole process has a continuing quality and an ever-going character.

To recapitulate, adjustment has been described as a process which involves goal-directed behavior, meeting in a complex situation, a thwarting circumstance which so heightens the tension that varied responses can occur which eventually result in a solution response. The solution response enables the organism to attain some goal which reduces the tension derived from that particular need-persistent behavior. So far nothing has been said concerning the quality or the

¹⁹Krech and Crutchfield, op. cit., p. 41.

kind of adjustment made. The process as described seems to be agreed upon by a number of writers in the field and it is this orientation which will be used in the study under immediate consideration.

Facets of Adjustment

If, then, the process can be agreed upon, it should be possible to look at what we mean by good adjustment as contrasted with maladjustive responses. Historically maladjustment has been emphasized as the delineation of maladaptive psychological mechanisms originated in psychiatric practice where treatment procedures were sought. The emphasis was placed upon restoring the personality to normalcy which Hacker²⁰ recognizes as never being adequately defined. Tyson²¹ in his inventory lists many characteristics of good adjustment in the descriptive terms found in a survey of mental hygiene literature. Very little has yet been done to establish what is meant by superior adjustment.

What aspects or facets of the adjustment process enter into a concept of good adjustment that can be reasonably well agreed upon? Various writers in the field express themselves differently in regard to these matters and seldom define adjustment in exactly the same terms or from the same point

²⁰Hacker, F.J., "The Concept of Normality and Its Practical Significance," Amer. J. Orthopsychiat., 1945, 15: pp.47-64.

²¹Tyson, Robert, "Current Mental Hygiene Practice," J. Clin. Psychol., 1951, 7: pp. 9-16.

of view. However, there do appear communalities in what are considered to be aspects of the well adjusted person which can be described. An attempt will be made to list some of these aspects in somewhat the order of frequency with which they appear in the writings of several well-known psychologists in various fields who have attempted to deal with the concept. All aspects are subsumed under seven categorized headings which are expressed in action terms. Since adjustment is to be considered as a process, it is felt that action terms can best be applied to a description of that process. These seven categories are somewhat arbitrary and not mutually exclusive, but seem to encompass fairly well the facets or aspects of that behavior characteristically called adjustive in the literature.

1. Maintaining an integrated personality. This category is mentioned frequently by various writers as a seemingly overall aspect of good adjustment. It seems to include a reconciliation of one's needs, abilities, past experiences, and patterns of behavior with the environmental opportunities, goals, and pressures so that one can present a harmoniously functioning united front to the observer. Integration includes the coordination of one's needs and goal-seeking behavior into smoothly functioning interaction with the environment. No one motive is over-emphasized and unusual thwartings can be met by the functioning organism without seriously disturbing its characteristic unity. Maintaining an integrated

personality as a criteria of adjustment has been stated in several ways.

Traxler²² states it in this manner:

In the last analysis, the best integrated and adjusted individuals seem to be those who have established some reasonable goals in line with their interests and abilities and who have settled down to work toward those goals seriously and steadily but without unusual tension.

A similar statement is made by Super²³:

. . . one can think of the individual as a more or less organized and integrated unit, and of the process of emotional development as one in which an attempt is made to organize a variety of reaction patterns or modes of behavior into an integrated, smoothly working whole. One in whom a degree of integration appropriate to the demands made upon him by society has taken place, is an emotionally adjusted person.

Shaffer²⁴ puts it still differently:

For a person to satisfy all his motives with regard for their functioning as an inter-related system, is good adjustment. To achieve this requires unified and integrated behavior, the presence or absence of which provides what is perhaps the clearest distinction between good or poor adjustment.

Krech and Crutchfield²⁵:

an integrated personality is one in which needs, demands and goals - instead of func-

²²Traxler, op. cit., p. 335.

²³Super, Donald E., Appraising Vocational Fitness by Means of Psychological Tests, New York: Harper & Bros., 1949, p. 482.

²⁴Shaffer, op. cit., p. 138.

²⁵Krech & Crutchfield, op. cit., p. 68.

tioning as separate, segmented parts of the behavior - work together optimally in a way that is self-consistent, mutually reinforcing, and non-conflicting. And this integration is mainly possible through the individual's system of values, ideals, and ideology.

Kingsley²⁶ expresses the same idea:

A wholesome personality is one that is well integrated. In the integrated personality the emotions, intellectual processes, and actions are coordinated so that they work together harmoniously for a happy adjustment to one's environment and for efficient intercourse with it.

Dysinger²⁷ repeats a similar idea in discussing personality integration:

The well integrated individual is one whose motivations, goals, and desires operate harmoniously within the limits imposed by one's physical and psychological equipment and those of the physical and social environment.

Probably the most elaborate statement in regard to maintaining an integrated personality is made by Symonds²⁸:

A well adjusted person presents a solid, unbroken front to the world and is free from competing trends within. . . . He adopts compatible goals, that is, goals which permit him to live with harmonious purposes in an open and forthright manner; he is forced to expend little energy in fighting undesirable trends within himself. . . . The integrated person, then, has achieved a reconciliation of freedom and discipline. . . .

²⁶Kingsley, Howard L., The Nature and Conditions of Learning. New York: Prentice-Hall, 1946, p. 413.

²⁷Dysinger, op. cit., p. 25

²⁸Symonds, op. cit., pp. 569-570.

The energy of the drives of an integrated person is expended on the outside world for effective adaptation.

Other examples might be cited in the literature but in the main they too phrase in a slightly different manner that which has already been said. It appears that there is substantial agreement upon the importance of maintaining an integrated personality as one of the facets or aspects of behavior judged as adjustive.

2. Conforming to Social Demands. Another aspect of the whole concept of adjustment which has had and still has some vogue as an index to adjustment is the degree to which the individual can fit into the complex relationships involved in human societies. It appears to be a minimal necessity to be able to appreciate the needs of others and to heed the rules of the particular culture in which one finds himself. To be able to satisfy one's needs without severe break with social regulations would appear to be a legitimate part of the concept of good adjustment. There appears to be no intent in the writings of those who have given the matter consideration, to demand rigid conformity as a sole criteria; most of them appear to recognize varying standards with varying cultures as well as legitimate occasions for breaks with the cultural edicts of a particular social group.

Dysinger²⁹ expresses his recognition of conformance to

²⁹Dysinger, op. cit., p. 52.

social demands:

the poorly adjusted person is often the one who fails to heed social and cultural demands or personal limitations in his efforts to satisfy his various needs and desires.

Morgan³⁰ implies some emphasis on this aspect.

The very best indices of child adjustment are to be found in the attitude of the child toward other persons and in their attitude toward him. It is a good sign if he has a wholesome, cordial attitude toward the members of his family, toward his comrades, his teacher and those whom he meets casually.

Mowrer³¹ is quite definite in expressing his attitude toward this aspect of adjustive behavior:

Each individual born into a human society is under pressure to adopt the approved ways of that society, and each individual experiences in the course of his own development some of the struggles, difficulties, and dilemmas which were involved in the evolution of his society. To the extent that the individual is able in his lifetime to assimilate the historically hard-won wisdom of society and to experience the fruits thereof, he may be said to be normal; to the extent that he fails, he is abnormal.

Kingsley³² implies the importance of this aspect:

The emotionally well-adjusted adult possesses stable and mature emotional habits, which are in harmony with his intellect, coordinated with his behavior, and in accord with the happiness and welfare of other people.

³⁰Morgan, John J.B., The Psychology of the Unadjusted School Child, New York: The Macmillan Co., 1937, p. 8.

³¹Mowrer, op. cit., p. 45.

³²Kingsley, op. cit., p. 423.

Anderson³³ combines the idea of integration with social sensitivity and emphasizes the plan for individual spontaneity:

The term 'socially integrative behavior' is applied to responses characterized by flexibility, to behavior which attempts to bring out differences in others and to find common purposes among differences. It is essentially growth behavior in which one can at the same time be spontaneous, have ideas of one's own and be harmonious with others.

Gates and others³⁴ indicate in making a concluding statement in regard to adjustment, the necessity of encompassing the social aspect of adjustment:

In short, the well adjusted person is one whose needs and satisfactions in life are integrated with a sense of social feeling and acceptance of social responsibility.

From the above examples, then, it would appear that social conformity to an optimal, but not a rigid degree, is another important consideration when attempting to define the well adjusted person. It is not a discrete category but rather an aspect which must be appraised in conjunction with other aspects.

3. Adapting to Reality Conditions. A somewhat less frequently mentioned aspect is the ability to face reality. A person so characterized seems to be able to organize past experience so

³³Anderson, Harold H., "Domination and Socially Integrated Behavior." (In) Barker, R.G., Kounin, J.S., and Wright, H.F., Child Behavior and Development. New York: McGraw-Hill, 1943. p. 461.

³⁴Gates and others, op. cit., p. 617.

16. Sports
17. When I was younger
18. My nerves
19. Other kids
20. I suffer
21. I failed
22. Reading
23. My mind
24. The future
25. I need
26. Dating
27. I am best when
28. Sometimes
29. What pains me
30. I hate
31. At school
32. I am very
33. The only trouble
34. I wish
35. My father
36. I secretly
37. I
38. Dancing
39. My greatest worry is
40. Most girls

AUTOBIOGRAPHY

I, Ralph Harold Tindall, was born in Cedarville, Ohio, March 29, 1914. I received my secondary education in the public schools of the village of Cedarville, Ohio. My undergraduate training was received at Cedarville College, from which I received the degree, Bachelor of Arts, in 1935. I received the degree, Master of Arts, in 1946 from The Ohio State University.

From 1935 to 1941, I was employed as a teacher in three public school systems: Whiteoak Township, Beavercreek Township and Worthington Village. During 1941 and 1942, I served as a Boy Scout Executive for Tecumseh Council at Springfield, Ohio. From 1943 to 1945, I served in the armed forces with eighteen months overseas duty. Since 1946, I have been the resident psychologist at the Ohio Soldiers' and Sailors' Orphans' Home in Xenia, Ohio. I have held this position while completing the requirements for the degree, Doctor of Philosophy.

that he can react to the immediate situation with due regard to the consequences of his actions. He is also able to refrain from some activities so that long range goals may be accomplished. He is able to perceive his own weaknesses and strengths with an optimal degree of clarity and is able to establish clear-cut goals commensurate with his abilities. Various writers have called attention to this aspect in discussing adjustment.

Mowrer³⁵ has been rather explicit in calling attention to this facet:

In order for a human being to be regarded as 'normal' in any society, he must have learned that the best way to safeguard his comfort and well-being in the long run is to 'face reality', i.e., to expose himself on occasion to present hardship or suffering as the surest way of insuring future survival and satisfaction.

Johnson's³⁶ semantic approach to maladjustment is based on the vagueness of the person's verbalization of goals and can be subsumed under adapting to reality conditions. He summarizes his approach in this manner:

Bringing these observations together, we see in them a fundamental design, or sequence, which we may refer to as 'the I.F.D. pattern'; from idealism to frustration to demoralization. The statement, 'Things are not going as well as they should', implies that some ideal or goal is being sought, that the individual is

³⁵Mowrer, op. cit., p. 36.

³⁶Johnson, Wendell. "The Semantics of Maladjustment." (In) Pennington, L.A., and Berg, I.A., An Introduction to Clinical Psychology. New York: Ronald Press, 1948, p. 498.

being frustrated in his efforts to achieve it, and that he feels discontented or demoralized in some way because of frustration. To put it crisply - maladjusted people may be viewed as frustrated and distraught idealists.

Fenton³⁷ in discussing the acceptance of self, refers to the ability of the well adjusted person to accept his nice features and his ugly ones, his strong traits and his weak ones without extremes of anxiety or depression. Stroud³⁸ also discusses the resolution of the conflict between actuality and how one would like to appear to his peers and his friends, as a mark of good adjustment. Kingsley³⁹ speaks about facing hard reality without disintegration.

Symonds⁴⁰ discusses a person's ability to accept reality:

The person who is well adjusted recognizes the reality and the inevitability of the conditions to which he must adjust.... The well adjusted person learns frustration tolerance, that is, the ability to postpone satisfaction until conditions are ripe to grant them. . . . A person must learn to face the reality of his inner nature however much he has been taught that certain trends within himself are bad, evil, immoral.

The well adjusted man does not magnify his successes, and, at the same time admits his

³⁷Fenton, op. cit., p. 95.

³⁸Stroud, James B., Psychology in Education., New York: Longmans, Green and Co., 1946. p. 238.

³⁹Kingsley, op. cit., p. 423.

⁴⁰Symonds, op. cit., p. 572, p. 578.

limitations; in particular, he avoids tendencies toward perfectionism which would be foolish whatever his talents or abilities.

There would seem to be sufficient agreement then, that taken in conjunction with those aspects already discussed, adapting to the realities of the situation is an important aspect to consider in attempting to define the well-adjusted person.

4. Maintaining Consistency. Some authors speak of consistency of response as a tempering condition to the conformity aspect of a well adjusted person. This is more of a qualitative category and seems to set the bounds within which instability of organization is acceptable. It is expected of the well adjusted person that over a reasonable period of time, his actions will be consistent with the standards he sets for himself. There will not be an excessive vacillation of purpose. His behavior is predictable within limits if the circumstances are known. This aspect has been referred to several times in the literature. Lecky⁴¹ refers to this aspect of good adjustment when he says:

It is our view that behavior is usually 'in character' not because the separate acts are related to one another, but because all the acts of an individual have the goal of maintaining the same structure of values.

Bagby⁴² intimates that consistency is an important aspect

⁴¹Lecky, Prescott, Self Consistency: A Theory of Personality. New York: Island Press, 1945, p. 10.

⁴²Bagby, English, The Psychology of Personality, New York: Henry Holt & Co., 1928, p. 24.

when he discusses organized behavior:

In short, when an individual is under great emotional tension, he will be nervous and show diffusion unless organized behavior accomplishes release.

Morgan⁴³ borrowing a term "comfortable constancy" from

Poffenberger conveys a similar idea:

Comfortable constancy does not mean . . . a condition of inertness. Instead each arena of action can be considered as an area with a hypothetical center equidistant from all dangers and with an outer boundary line beyond which it is not safe to roam. A man may move around at his pleasure in any of these safe areas but is given various kinds of warnings when he gets too near the fringe of danger.

Symonds⁴⁴ calls attention to this aspect thusly:

The well-adjusted person is characterized by the persistence and depth of his loyalties.

Mowrer⁴⁵ again ties this aspect of adjustment in with conformity:

Whatever reason, non-conformity seems imperative, then openness therein and willingness to take the consequences are requisite. When non-conformity and inconsistency - in the sense of duplicity and evasion - are combined, the soil of social alienation is prepared and seeds of personal abnormality are sown.

Adding consistency, then, to our other aspects of adjustment seems necessary. It serves to enhance the quality of

⁴³Morgan, John J.B., The Psychology of Personality. New York: Longmans, Green and Co., 1948. p. 46.

⁴⁴Symonds, op. cit., p. 577.

⁴⁵Mowrer, op. cit., p. 45.

adjustment more sharply, delineated possibly by the maintenance of integration. It is the aspect which lends hope to the possibility of predicting within limits, future behavior from present behavior under certain conditions.

5. Maturing with Age. This facet of the well adjusted person takes care of the problem of ageing and permits variation of criteria to differences in age. It is not a pure aspect of the adjustment process in itself, but relates to the growth principle which must be considered in assuming the adjustment level of any individual. Until maturity is reached, it is expected that the process of integration, for example, will progressively become more complete. The same may be applied to adapting to reality situations. It would be expected that the younger child with fewer experiences would be less able to formulate with clarity the subsequent results of immediate behavior, but it would likewise be expected that growth proceeds with age in the well adjusted person. There would seem to be a direct relationship between later adjustment and earlier adjustment as the latter becomes the pattern for the former. It is also necessary to take into consideration the desirability of increasingly assuming the responsibility for one's actions which becomes another facet of the developing personality characterized as well adjusted.

Morgan⁴⁶ hints at the necessity for maturity to be

⁴⁶Morgan, John. J.B., The Psychology of the Unadjusted School Child. New York: The Macmillan Co., 1937, p. 221.

taken account of in considering the adjustment process when he says:

Personality is changed largely because of external pressure upon the individual; and if a child resists all influences, he becomes fixed as he is, or reverts to a more infantile state of existence.

Smith and others⁴⁷ take a more definite stand in regard to this aspect of adjustive behavior.

This complex of feelings and behaviors must be evaluated in terms of the status of the individual (i.e., his age, sex, position in society, etc.). The same behavior may be evaluated differently when observed in the case of a six-year old and a sixteen-year old in a boy or in a girl.

We must include some reference to a maturational factor in a description of good adjustment. Process of adjustment is not just a reoccurring flow within a field of action, but a process that tends toward increasing complexity with the maturation of the organism. The inclusion of this facet seems justified.

6. Maintaining an Optimal Emotional Tone. It has been stated by a number of writers that the well adjusted person is a happy person. He can approach life with an essentially optimistic attitude. He can absorb the minor and major disappointments without becoming exclusively involved emotionally. He is not disturbed in regard to the fulfillment of simple organic needs such as eating and sex but permits himself to

⁴⁷ Smith, Eugene R., Tyler, Ralph W., and the Evaluation Staff. Appraising and Recording Student Progress. New York: Harper & Bros., 1942, p. 354.

enjoy such within limits regarded unexcessive. He is quite capable of reacting to emotionally toned situations, if the occasion demands, but never lets himself become "thrown" by the process. He may show anger, sorrow, fear, and love when the circumstances are appropriate but he recovers his equilibrium quickly and is able to accept his reactions without excessive self-castigation or placement of blame on other environmental factors.

Fenton⁴⁸ mentions this aspect in discussing adjustment and maintains that the well adjusted person can accept himself and changing conditions of his environment with a fairly persistent state of satisfaction. He can take part in the everyday affairs of life with reasonable assurance and cheerfulness.

Kingsley,⁴⁹ discussing the emotional aspects of the well adjusted individual, refers to "emotional stamina" which makes it possible for the person to suffer disappointment without being overwhelmed, to meet frustration without loss of temper and to face reverses with a spirit of optimism. The well adjusted person is also able to examine his desires, urges, prejudices, and feelings of guilt in terms of logical reasoning.

Symonds⁵⁰ deals rather extensively with the emotional

⁴⁸Fenton, op. cit., p. 95.

⁴⁹Kingsley, op. cit., p. 420.

⁵⁰Symonds, op. cit., pp. 574-575.

expression of the well adjusted individual.

The well adjusted man is one who, in addition to capacities for self-control, has a certain freedom of emotional expression. . . . A satisfactorily adjusted person is content and maintains an adequate and satisfying emotional under-tone. . . . The well adjusted person has adjusted his aspirations to reality that is, the reality of what he can expect of himself in the light of his talents, social position, and opportunities. . . . He shows normal curiosity . . . He is able to enjoy erotic pleasure without feeling it is somehow bad or sinful. . . . adequate sexual expression is recognized as a sign of good adjustment, but variations in terms of individual needs must also be recognized and can be contained in a concept of good adjustment. . . . The well adjusted person is one whose emotions are under control and who does not permit them exaggerated expression.

There is in the human organism an accompanying feeling tone whenever adjustive processes are considered. How the particular individual handles these feeling tones - the limits within which he permits himself expression, merits consideration in an assessment of his adjustive status. A facet dealing with maintaining an optimal emotional tone seems to be a necessary inclusion.

7. Contributing Optimally to Society Through Increasing Efficiency. The facet now to be examined goes beyond conforming to social demands and sets up in value terms the increasingly efficient contribution to society by the individual who is considered well adjusted. This aspect demands a definition in value terms. It presupposes that what contributes to social good is known and that the individual who

rates highly along every aspect discussed, up to the present, will be free to cope efficiently with problems that eventually lead to a more enlightened society, a happier one, and a more smoothly functioning one. Again, the limiting factors of ability and opportunity have to be taken into consideration in each individual's case. Contribution to society as a result of efficient living can be considered at any level. This is a facet of the well adjusted personality that doesn't pretend to stand alone and is perhaps, the least easily assessed of those discussed to this point. However, since increased efficiency can be an outcome of better adjustive techniques, it is included for consideration.

Mowrer⁵¹ considers that any discussion of normalcy must involve a concept of efficiency in regard to striving for a goal or an ideal. Morgan⁵² emphasizes that a person can not be considered socially mature if his whole aim in life is to get all he can from others without contributing in return. Symonds⁵³ believes that effective adjustment involves the sublimation and socialization of the basic impulses and drives. Kingsley⁵⁴ seems to feel that successful adjustment

⁵¹Mowrer, op. cit., p. 37.

⁵²Morgan, John J.B., The Psychology of Abnormal People. New York: Longmans, Green & Co., 1948, p. 86.

⁵³Symonds, op. cit., p. 11.

⁵⁴Kingsley, op. cit., p. 421.

incorporates advancement of the individual in terms of continuously improved performance with a minimum of emphasis on outdistancing others and a maximum of emphasis on self-improvement.

Hacker⁵⁵ equates optimal adjustment with maximum use of capability and that it does involve the making of an evaluative judgment.

By speaking of optimal equilibrium or maximal use of capability we express judgment as to value, namely, that one state of affairs is psychologically better and consequently more desirable than another.

This facet which deals with optimal contribution to society through increasing efficiency is one that appears difficult to define and to set apart. However, it is the crux of the struggle for attainment of techniques judged adjustable. It is the facet which gives purpose in value terms to the struggle for satisfactory adjustment and as such warrants inclusion in our discussion.

It would be naive to assume that all aspects of good adjustment can be subsumed under these seven major facets of adjustment. For practical purposes, however, these facets developed on the basis of agreement in regard to their importance by writers in the field, seem to delineate the concept of good adjustment sufficiently so that representative measures of adjustment may be selected. In order to move from good adjustment to superior adjustment through the medium of

⁵⁵Hacker, op. cit., p. 60.

higher level adjustment skills mentioned by Robinson⁵⁶, it would probably be necessary to create such a facet as that of optimal personal development. By this is meant the maximum use of the creative, aesthetic, social, and recreational outlets available and suitable for individual needs within a particular society. Such a step is at present beyond the scope of the immediate project.

In developing a concept of adjustment, it has first been emphasized that from the point of view of this study, adjustment is to be thought of as a process. Further, that this process be judged as to its adequacy in terms of an individual and his environmental field if the various aspects (1) maintaining an integrated personality (2) conforming to social demands (3) adapting to reality conditions (4) maintaining consistency (5) maturing with age (6) maintaining an optimal emotional tone and (7) contributing optimally to society through increasing efficiency, are considered in their relationships and inter-relationships as parts of the total functioning personality. None of the proposed aspects can be considered in dealing with a functioning person as a single criterion for adjustment. They are convenient headings under which judgments may be subsumed, but to have meaning, each aspect must be considered in relationship to the functioning whole.

It is, perhaps, well to emphasize at this time that

⁵⁶Robinson, F.P., Principles and Procedures in Student Counseling, New York: Harper & Bros., 1950, pp. 240-259.

while various techniques purport to arrive at an assessment of adjustment, they are in reality based upon expression of behavior and feeling. Behavior in any specific area may be measured with the appropriate instrument along a particular dimension. When a label is placed on that behavior as to whether it is adjustive or maladjustive we enter the realm of values which takes us beyond pure objectivity. However, for practical purposes in fields of therapy and counseling it is appropriate to investigate this concept but its essential subjective nature must be recognized.

In the following paragraphs we propose to develop further the concept of adjustment by briefly discussing agreed upon adjustive mechanisms by means of which the organism carries out the process of adjustment.

Mechanisms of Adjustment

The human organism is complex and maintains itself in a complex environment. When the organism's goal directed behavior is thwarted, it can arrive at solutions which may only partly reduce the tension created by the instigating need; it may stumble upon, in trial and error fashion, diverse forms of behavior which may act as substitute need reducers; it may select behavior which reduces the tension of the instigating need but may itself be so socially frowned upon that new needs and resulting tensions are created; it may be met with such frustrating circumstances for that particu-

lar organism that partial or complete disintegration of behavior occurs; it may find as a result of thwarting that some form of symbolic behavior is partially tension reducing. There may occur substitutions through the conditioning of one response for another. So many discrete forms of behavior may be evolved from these complex situations that it may be next to impossible to trace back to the original instigating circumstances.

Adjustment appears to be related to age, sex, cultural level, ability and opportunity of any particular organism. Any judgment formed as to adjustment level in any individual case has to take these many variables into consideration. Despite these difficulties, for large groups within our culture, there are certain recognized levels of behavior necessary for the organism to attain in order to maintain itself independently. When thwarting of any need occurs, there are also commonly agreed upon mechanisms that organisms typically use, for affecting adjustment. These commonly agreed upon mechanisms, if carried to a degree judged inadequate by either the organism itself or the immediate associates of the organism, can be looked upon as symptomatic of the level of maladjustment. There are no hard and fast lines between that behavior judged well adjusted and that behavior judged maladjusted. Rather these two degrees represent opposite ends of a continuum and only by taking into account all the complex interactions and circumstances operating at a given time,

can a judgment be made. Traxler⁵⁷ states it thusly:

(A basic tenet of modern psychology) . . . individuals can never be clearly separated into normal and abnormal, or into the emotionally adjusted and the neurotic, but rather that abnormal psychological phenomena are either exaggerations or disguised developments of normal psychological phenomena.

An enumeration of all behavior names that at some time or another fall into the maladjustive class would be almost an endless one. It is possible to take the antagonistic aspects of the facets already described for the well adjusted person and utilize them to describe the other end of the scale. This has already been implied in the discussion of these positive aspects. It is possible also to group symptomatic behavior in terms of psychological mechanisms which have been described by many writers in the fields of clinical psychology, educational psychology, mental hygiene, etc. These mechanisms seem fairly agreed upon as to their nature. Different writers have different organizational schemes to present them. Even a loose organization of adjustive mechanisms can not be all inclusive nor establish categories that are mutually exclusive, i.e., mechanisms may take various forms and serve a variety of purposes. A recognition of these adjustive mechanisms is necessary in order to describe the modes of responses made by organisms faced with frustrating situations and it tends to clarify the quality of the facets

⁵⁷Traxler, op. cit., p. 336.

of adjustment already described.

Traxler⁵⁸ further remarks that adjustment is relative, that is, it is not the adjustive mechanism per se that is indicative of the degree of adjustment evidenced but whether or not a persistive adjustive mechanism becomes so habitual and out of line with the individual's concept of himself or with socially approved behavior to set the individual apart to the degree which would label him maladjusted. If the individual resorts to unacceptable mechanisms to overcome the thwarting of some motivating need and as a by-product arouses a degree of anxiety which makes it impossible for the organism to function in accordance with the aspects as previously set forth, then steps may have to be taken to aid the organism to find more acceptable means of reducing the need aroused tension. For our purposes we are more concerned with the adjustive mechanisms that are typically used by the thwarted organisms in order that we may gain some clues from the symptomatic behavior as to the level of functioning of the organism in order to make some appraisal of that functioning level.

Most writers mention various forms of adjustive behavior and various attempts have been made to classify typical behavior. Kretch and Crutchfield⁵⁹ divide such adjustive

⁵⁸Ibid., p. 335.

⁵⁹Kretch and Crutchfield, op. cit., p. 72.

mechanisms into healthy and unhealthy and summarize in this manner:

Adaptive adjustments to frustration are found in intensification of effort toward the goal, reorganization of the perception of the problem of how to reach the goal, substitution of an accessible goal for an inaccessible one. Maladjustive consequences of frustration (i.e., those which may occur at the cost of the total healthy functioning of the individual) are found in the form of aggression, regression, withdrawal, repression, sublimation, rationalization and projection, autism, and identification.

But such a division fails to take into account the relative nature of adjustment and tends to encourage a dichotomy of adjustive mechanisms which may or may not be correct in a particular situation. Certainly some forms of withdrawal such as a severe break with reality would undoubtedly be considered maladjustive. However, there are occasions when a degree of withdrawal might, in the light of the functioning of all aspects, be judged quite adjustive as in the particular case of the research recluse who is quite content with his adjustive status and very acceptable because of the nature of his contributions to society.

Louttit⁶⁰ lists types of reactions indicating maladjustment and attempts to portray the overt behavior characteristics. He includes such typical reactions as inferiority feelings, jealousy, fear manifestations, day-dreaming, withdrawal, negativism and disobedience, hysteria, compulsions

⁶⁰Louttit, C.M., Clinical Psychology, New York: Harper & Bros., 1947, p. 492.

and compulsive acts, obsessions and obsessive ideas, hypochondriasis, and depression-elation cycles. Manifestations of such actions need to be understood if one is to make any appraisal of adjustment level. Nearly any good clinical psychology text or mental hygiene text expands and clarifies each typical adjustive mechanism.

Perhaps one of the most convenient classificatory systems of adjustive behavior is that of Shaffer⁶¹ who groups the adjustive mechanisms according to the modes of response displayed. He presents five groups (1) adjustment by defense, (2) adjustment by withdrawing, (3) adjustment involving fear and regression, (4) adjustment by ailments, and (5) persistent non-adjustive reactions. Under defensive adjustment he includes such behavior manifestations as bullying, attention getting, unruly conduct, stealing, attitudes of inferiority, direct attack, identification, egocentrism, lying, rationalization and projection. In the category adjustment by withdrawing he includes solitary, shy behavior, stereotyped behavior, negativism, phantasy, and retrogression. As adjustment involving fear and regression, he includes persistent worry and anxiety, phobias, residuals of traumatic situations, compulsions and repressions of thinking. In adjustment by ailments he mentions timely illnesses, forgetting identity, malingerling and stammering and stuttering. As persistent nonadjustive reactions he lists persistent visceral states,

⁶¹Shaffer, op. cit., p. 145.

diffused motor activity, repeated motor movements, fatigue, weaknesses, insomnias, aches, pains, vague fears, irritability, depression, pessimism, attitudes of despair, and strong emotional reactions to inappropriate stimuli. No attempt is made by Shaffer to maintain that such categories are mutually exclusive but they do represent a convenient way of classifying the many types of adjustive behavior possible in thwarting situations. It is only in the examination of such typical reactions of a group of individuals or examining the behavior of a particular individual over a period of time that any judgment may be formed as to the overall adjustment level of the group or individual in question. Shaffer's classification seems as comprehensive and workable as any and as such merits inclusion in this discussion of the general concept of adjustment.

It may now be noted that there is considerable evidence for the existence of commonly used adjustive mechanisms on the part of large numbers of human organisms. Authority is not always in agreement as to how they should be categorized or at what precise point on the continuum any of these mechanisms shift in status from adjustive to non-adjustive. The process of adjustment can be described. Aspects of that process can be delineated which seem to differentiate between adjustment characterized as of value to the organism and that characterized as neutral or detrimental to the organism as well as the society in which it functions. There have also

been described certain mechanisms which seem to be used by human organisms in acting out the process of adjustment. The formulation of such a concept of adjustment is in reality the background for attempts to make appraisal in individual or group terms of the efficiency of adjustment. It serves further to highlight the complexity of the task undertaken when any effort is made to appraise level of adjustment.

Problems in Measuring Adjustment

If adjustment is a process which may be evaluated in terms of various aspects or facets of the total concept as evidenced through manifest mechanisms and symptomatic behavior, then it should be possible to sample such manifestations of behavior and derive measurements or indices which, when applied to individuals within a group, would differentiate them along a continuum from adjustive to maladjustive levels. Most measuring instruments and methods of appraisal have attempted to do just that. Whatever the approach - questionnaires, projective techniques, controlled observations, judgments of associates, or judgments of authority - all attempt to arrive at an evaluation of adjustment by sampling responses or actions of the organism in question.

The complexities involved in constructing any technique which adequately samples the behavior of the organism in question, in the light of a complex global concept of adjustment, appear almost insurmountable. When the relativity of

adjustment to such variables as sex, age, ability, cultural grouping, opportunity, past experience, and momentary structuring of the environmental field are taken into account, the task becomes even more complicated. As a result of these difficulties it might be expected that most instruments are rather limited.

When it is considered that many tests such as the usual questionnaires and inventories depend upon accurate reports of individuals who may not desire to cooperate to the fullest extent or who, by the very nature of these typical patterns of reaction, are unable to report accurately, the task becomes increasingly difficult. Methods of appraisal which depend upon ratings and judgments of observers introduce the response patterns of the observer which may distort the results obtained. Indices of accomplishment may not always be particularly relevant to the appraisal of adjustment because, despite the existence of a high level of accomplishment, individual differences in ability and tolerance of frustration may confuse the issue. Projective techniques may permit a mirroring of unique differences but again the question of imposing the examiner's biases in the interpretation process may cause the results to vary in an unaccountable fashion. Despite these specific difficulties surrounding the measurement of level of adjustment by any one approach now in existence, we continue to use the instruments we have - imper-

fect though we feel them to be - primarily because they are the only ones available at the present time.

It is the purpose of this study to select certain agreed-upon approaches to the measure of adjustment that seem to be representative and frequently used, and compare the results secured from these measures when applied carefully to a defined population in the hope that agreement or disagreement among the measures may be a contribution that will serve to help clarify some of the difficulties faced. Perhaps an accumulation of a body of such data with what is already available may indicate modifications in approach to the assessment of the level of the adjustive process. Perhaps by using a clearly defined population, well known to the investigator, some light can be shed upon next steps that might be available in setting up more effective criteria of adjustment. The limitations of the instruments used necessarily impose themselves upon the data and any conclusions drawn must take such into account.

In this chapter it has been demonstrated that a global concept of adjustment is a complex one which makes any attempt to measure adjustment adequately, a difficult procedure. Nevertheless, we are continually arriving at judgments in regard to both groups and individuals in the matter, which makes it imperative that we subject our commonly used ways

of arriving at those judgments to close scrutiny. If we are able to subject our present criteria to sufficient test, then at least we should be able to recognize how much confidence we can place in those criteria.

CHAPTER III

DESCRIPTION OF ENVIRONMENT AND POPULATION OF STUDY

Environmental Background

The study proposes to apply representative measures of adjustment to a population that is well-enough known that underlying rationale for agreements or disagreements between the various measurements, may be pointed out. At the time of the investigation the investigator was serving as the Resident Psychologist in a comparatively large orphanage known as the Ohio Soldiers' and Sailors' Orphans' Home located in Xenia, Ohio. Since the individuals residing in this institution were well known to the investigator, it was felt that some population within this larger group would serve the purposes. In order to provide some background to judge the collected data, it is felt necessary to present a brief description of the over-all environmental picture of the selected population.

The Ohio Soldiers' and Sailors' Orphans' Home was established by local G.A.R. units, shortly after the close of the Civil War to care for the children of Union veterans. It was soon taken over by the State of Ohio and continues to

function as an autonomous unit of the State, supervised by a board of trustees appointed by the Governor of Ohio. In its eighty years of existence it has grown to be a sizeable institution with a four-hundred acre campus and over seventy modern buildings. The direct administration is supervised by a superintendent (appointed by the board of trustees) who functions through various department heads. The psychology department headed by a psychologist who resides on the campus, was established in 1938 and is one of the youngest administrative departments of the institution. The institution has at the present time an average of two hundred employees working in various departments. The population has fluctuated up and down over the years from less than one-hundred children in its early years to nine-hundred during the depression years. At the time of this study the average population ranged between four-hundred and four-hundred twenty-five children in residence each day.

Children may be admitted from any of the counties or cities of Ohio but must be from families in financially destitute circumstances and must be proven to be children of a parent who served honorably in time of war in one of the military branches of service. They must be between the ages of four years and seventeen years and meet medical, psychological, and social standards as set by the Board of Trustees. At present these standards mean that a child must be free from severe physical defect - not handicapped to the extent of requiring special care or continuous hospitalization.

The psychological standards mean that to be eligible, the child must establish or be capable of establishing an I. Q. of at least 75 on one of the Binet Scales as administered by a competent examiner, and that he not be so emotionally disturbed as to require intensive psychotherapeutic efforts. The social standards require that he not have a confirmed record of delinquency which can not be coped with within the institutional program. These are flexible standards and are varied in accordance with individual prognosis. Both parents may be living, in fact less than five percent of children now in residence are true orphans with both father and mother deceased. The majority of the population comes from homes broken by the death of one parent, divorce, immoral conditions, or by the institutionalization of one or both parents.

Upon entering the Home, each child is held in semi-isolation during the first two weeks. At this time he is subjected to a medical and psychological study and slowly introduced to the various routines of institutional living. From studying his background, individual potentials and educational history, a tentative educational program and housing arrangement is set up. He usually lives in a housing unit that accommodates fifteen or sixteen other children near his own age and developmental level. This unit is in charge of a woman employed as a supervisor. Whenever possible, a couple is employed to act as house parents instead of a sole woman supervisor. He is housed in modern cottage-style housing and shares a room with another boy. The house is comfortable with

living room and basement for recreational purposes. Meals are provided in two centrally located dining halls where cottage groups eat together. His life is considerably more regimented than that of the child living in his own home, as regularity of such things as meal time, cottage chores, bed time, bathing, etc. are inherent in large group management.

A child attends school within the institutional grounds. Small classes in the usual academic subjects are provided from kindergarten through the twelfth grade. In addition to the academic program beginning with the seventh grade, two hours a day are spent in exploratory vocational trades. At the tenth-grade level a child, with counsel, selects a major trade - many in skilled areas (i.e. mechanic, beautician, metal worker, electrician, etc.) in which to spend one-half of his school day. The curriculum includes vocal and instrumental music, dramatics, art, physical and religious education. Teachers are for the most part well qualified in the mastery of specific subject matter areas. Classes are grouped as nearly as possible along ability lines and are kept small. Ten months of the year are devoted to such a program. The other two months are spent with remedial school sessions, camping periods, work experience programs for older children, and with vacations away from the institution either with friends or relatives.

Children are usually in residence until their eighteenth birthday or high school graduation. Some remain until nineteen or twenty years of age, if they have specific programs which require the extra time. Other children are placed upon reaching

the age of sixteen, if they would appear to profit from work experience rather than a continued educational program. Still other children are placed back with their rehabilitated families whenever such a situation is made possible. A few are placed in approved foster homes when institutional residence seems inadequate for the needs of the child. Because all children are made wards of the applying court upon admission, very few are ever eligible for adoption and are not moved about without the approval of the placing court. The population turnover is not great. Approximately sixty children per year are discharged and about sixty new children are admitted each year. More than half of those discharged are children who have completed their educational program.

Population Selection

It was recognized that in making the proposed study, it would be too time consuming to attempt to measure the total population within the institution as extensively and intensively as was desired. Since our primary emphasis was upon agreement between measurements rather than upon the reactions of a large representative population, it was felt to be more in line with the task set, to secure a population within the institution whose membership characteristics could be clearly defined.

Sizeable groups could be found at the elementary school ages of both male and female. Groups of sufficient number could also be found at the adolescent level. It was felt that in order to control the sex variable, only one sex would be used and all those of the same race - since the effects of these

two variables were unknown upon several of the proposed instruments.

Before the final selection of the group was made, a cursory survey of the available measures used to assess adjustment was made. Since many were more appropriate to the older age group, it was felt that one of the adolescent groups should be used. It was also necessary to take into consideration the factor of which group was most intimately known by the investigator. When this factor was considered, it was indicated that the adolescent male group best fitted the requirements of the study.

With this in mind the population finally selected was all of the white boys who had reached their fourteenth birthday by April 1, 1950. Also all boys included were to have been in residence for at least six months prior to April 1, 1950. Boys who were being discharged from the institution because of completion of their school work in June 1950 were not included, as it would be impossible to secure measurements prior to their leaving. The population then was 100 percent of the adolescent white boys beyond fourteen years of age who were not being immediately discharged and who had been in residence for a sufficient length of time to have become well known by their peers and the adults working with them.

Population Characteristics

With the delineation of the population to be used in this study set forth in the last paragraph, it becomes possible to consider certain characteristics of that population. In

subsequent paragraphs the cultural background of the group will be discussed; the age range defined; school grade placement considered; the intelligence range of the group shown; and the range of years in residency within the institution set forth. It is felt that such an explanation of these specific characteristics will clearly indicate the limitations of the data.

From a cultural standpoint an examination of case histories indicates that the majority of these boys are products of broken homes, located for the most part in the larger cities of Ohio. Fifteen of the sixty-six boys were full orphans with both father and mother deceased. Fifty-one of the sixty-six boys had at least one parent living. Divorce within the immediate family ran higher than in families of the general population. There was frequent history of institutionalization of family members for criminal offense or for neurotic or psychotic disturbance. A number of these boys had experienced, since infancy, a series of unstable environmental placements - detention homes, foster homes, and other children's institutions. Eight of the boys had resided continuously in the O. S. & S. O. Home since they were four years of age. It is possible to generalize and state that none of these sixty-six boys had ever experienced a stable home environment or the cultural advantage usually attributed to middle-class American living. Though all of these boys had experienced disturbed living situations and had experienced many similar cultural lacks, they exhibited a wide range in adjustment status.

When the ages of the individuals participating in this group, were calculated as of June 1, 1950 (which was used as

the anchoring date of the study) the range was from 14 years 3 months to 18 years 4 months. The mean age was 16 years. The sigma of the distribution in months was 13.4. Table 1 gives the distribution of the population studied according to age in years.

TABLE 1. DISTRIBUTION OF TOTAL POPULATION ACCORDING TO AGES	
Age in Years	Number
0-4	1,234,567
5-9	1,123,456
10-14	1,012,345
15-19	901,234
20-24	890,123
25-29	789,012
30-34	678,901
35-39	567,890
40-44	456,789
45-49	345,678
50-54	234,567
55-59	123,456
60-64	112,345
65-69	101,234
70-74	90,123
75-79	89,012
80-84	78,901
85-89	67,890
90-94	56,789
95-99	45,678
100 and over	34,567
Total	10,000,000

14	14
15	17
16	20
17	13
18	2

The population was enrolled from Grade Six through Grade Eleven as of the close of the school year in 1950. That is, they were completing the grades in which they are listed in Table 2. The average grade placement of the group was at the 9.5 grade level. Five of the boys were considerably over-age for grade, if compared to ordinary public school standards, but in the class groupings within the institutional school, they were with fellows of similar ages for much of their school program - even though classed at a lower grade level.

TABLE 2. GRADE DISTRIBUTION OF THE TOTAL POPULATION

Grade	Number
6	2
7	3
8	15
9	18
10	23
11	5

Approximately every three years each resident of the O. S. & S. O. Home is tested with an individual intelligence scale. The Revised Stanford Binet Intelligence Scale; either Form L or Form M had been used most frequently. In surveying the intellectual ability of the group, it was decided to take the latest resulting I. Q. from the Binet, regardless of form. Where there were discrepancies over the years of more than 10 points or where the boy had not been tested with the Binet Scale in the last three years, a new test result was secured. The total I. Q. range was found to be from 72 to 141. The mean I. Q. of the group was 98. The sigma of distribution was 12.29. Table 3 shows in percent the differences between the chosen population and that expected of the normal population¹. Where we expect 66% of the population to lie within the 85-114 range, we have 79%. At the 60 - 69 range where normal expectation is 2%, we have 0%. At the 70-84 range we have 12% where expectation is

¹Bernreuter, R. G., and Carr, E. J. "The Interpretation of I.Q.'s and the L-M Stanford Binet." Jour. Edu. Psychol. 1938, 29: 313-314.

14%. Above 115 where we normally expect to find 17%, we have only 9%.

TABLE 3. INTELLIGENCE DISTRIBUTION OF STUDY POPULATION
COMPARED TO NORMAL EXPECTATION

I. Q. Range	Population Percent	Normal Expected Percent
Above 115	9	17
85-114	79	66
70-84	12	14
60-69	0	2
Below 60	0	1
Totals	100	100

The population studied is somewhat skewed toward the lower average range of ability, but can be considered as consisting of individuals within the normal range of ability. It has fewer superior individuals, and no individuals below what is generally thought of as borderline ability.

The range of residence at the O. S. & S. O. Home of the 66 boys studied, is from 9 months to 163 months or from $3\frac{3}{4}$ of a year to 13 years and seven months. The average months of residence for the group is 78.2 months or approximately 6 years and 6 months. The sigma of the distribution is 38.0 months. Table 4 shows the distribution of the population by years in residence.

TABLE 4. DISTRIBUTION OF POPULATION ACCORDING TO YEARS
OF RESIDENCE IN THE O. S. & S. O. HOME

Years of Residence	Number
1 year or less	3
2-3	15
4-5	13
6-7	13
8-9	11
10-11	7
12-13	2
Over 13 years	2

From these characteristics it is seen that the population of 66 boys comes from a family background that would rate rather low on a family stability scale. Their cultural background as a group is considerably below that characterized as middle-class American. They are adolescent according to the age range usually considered as such. They are somewhat retarded in school placement but within the average range of ability. They have resided at the O. S. & S. O. Home for a considerable length of time. The daily life of each person within the institution is similar in most aspects.

Limitations of the Data

It is quite obvious that we are dealing with an atypical group as far as their being representative of adolescent boys in the general population, attending public school, and living within a family group. The very fact that they have spent long periods living in an institution - subjected to diluted personal relationships - should make their adjustment problems more

difficult.

While this group is atypical in some aspects and not optimum for a study of adjustment criteria, it has other characteristics that make it a reasonable group to study. In the first place the group's members were available for the intensive measurement and observation procedures. By virtue of the fact that the present environmental conditions are practically the same, variation due to immediate causes, is held relatively constant. By living in such a close group the boys are better known to those making the study than the members of a similar group would be known if drawn from the general population. This degree of knowledge should make it easier to describe variations between adjustment indices. In addition there is more known about the individual members in regard to background factors than with a population selected from a non-institutional group. Because the group is relatively stable, there is more opportunity for follow-up over a longer period than would ordinarily be the case.

In selecting this group, we are primarily interested in the adjustment variable. Observation will confirm that even with the atypical background and environmental circumstances experienced by this group, they do vary as individuals in their adjustment status. Some boys get along better than others within the institutional environment. When they are beyond the confines of the institution, they also vary in their abilities to meet the environmental pressures of the moment. If one considers them in regard to the aspects of adjustment outlined in Chapter

II, a variation is readily apparent. Since this appears true, then regardless of the atypicalness of the group with which we start, we should find sufficient variation within the group reflected on instruments designed to assess the adjustment status to make comparisons from one instrument to another. If we had ideal instruments, a boy reflecting a relative degree of maladjustment on one instrument, should likewise reflect such a degree on a similar instrument designed to measure the same thing. This should be true within our chosen population even though considering its atypical aspects, the adjustment level of the group as a whole might be considerably lower than that of a representative sample drawn from the general population of adolescent boys of similar ages. Inspection indicates that the scores obtained by the various methods are distributed normally.

In generalizing certain findings that may be brought out when various instruments are considered specifically, it is necessary to recognize the atypical aspects of the group and modify one's generalization accordingly. However, it does seem reasonable that any agreement or disagreement found between instruments as applied to this group should be reflected, when applied to groups with different characteristics. By making recognition of the characteristics of the group with which we are working, we purposely set limitations on the study.

In summary this chapter has attempted to describe the environmental background from which the population was drawn and recognize the limitations placed on the data by virtue of

its institutional character. Further, the population of 66 boys between the ages of fourteen and eighteen (comprising the group) has been characterized in detail in regard to such aspects as cultural background, age, school placement, intelligence, and years in residence. With this perspective the limitations of the data secured should be more evident.

CHAPTER IV

GENERAL DESIGN, SELECTION OF INSTRUMENTS AND PROCEDURES

General Design

The general pattern of this study follows that of the typical correlational study. It is the intention to deal with the practical question as to whether there is agreement between representative techniques proposing to establish adjustment indices. Therefore, it is intended to apply a variety of measures purporting to assess adjustment to the same population. The population, 66 adolescent boys, was selected so that day-to-day conditions for each member were relatively similar, so that background was fairly common, and so that immediate cultural pressures were approximately the same for each member. Within this framework it was apparent that members of the population exhibited a variety of behavior which was distributed throughout an adjustive-non-adjustive continuum. Data secured through the application of various measurement techniques are to be subjected to correlational study.

It is hypothesized that the various techniques of evaluating adjustment, if applied to the same population, should be comparable in the manner in which they differentiate individuals,

if they are tapping relatively individual ways of adjusting in a reliable and valid fashion. If this situation, which has been described as the process of adjustment is fleeting and has no typical form, then these measures necessarily taken on different days should have no pattern of relationship. Further, if each technique is tapping unique facets of a complex behavior process, there should be positive relationships between the techniques of any particular approach but not necessarily between different approaches. To ascertain the presence or absence of relationship between various measures and to develop some explanation of whatever state of affairs exists, becomes the immediate problem of the study.

In order to approach the problem it becomes necessary first to determine what are the various approaches to the evaluation of adjustment. Secondly, it becomes necessary to select representative measures within each approach that are suitable for use with the population chosen. Then it follows that these measures must be applied as skillfully as possible to the chosen population under well-defined conditions. This chapter will deal with these problems in the order set forth above.

Categorization of Criteria Measures

As has been mentioned previously, many specific techniques are available which purport to be useful as aids in differentiating between people on an adjustment continuum. These

techniques have been classified or categorized in numerous ways for convenience in discussion or handling. It is the plan here to review these typical classification schemes and arrive at a categorization scheme which will be convenient in fulfilling the purposes of this study and represent all the commonly used techniques. No claim is made for the uniqueness nor finality of any such scheme. Others have and will make divisions differently, which seems quite acceptable as long as all representative techniques can be encompassed logically within the proposed scheme.

We have already referred to the scheme proposed by Greene, Jorgensen, and Gerberich¹ who divided the various techniques into those (1) that employ free association, (2) that are based on direct observations, (3) that use rating scales, and (4) that depend upon personal reports. Hutt² categorizes measures of personality as (1) those which can be considered as structured personality tests which permit no opportunity for organizing uniqueness and presuppose all subjects will react to tests alike - inventories and questionnaires, (2) partially structured personality tests which presuppose some common stimulus reaction but allow for some organizational uniqueness -

¹Greene, H. A., Jorgensen, A. N., and Gerberich, J. R. Measurement and Evaluation in the Secondary School. New York: Longmans, Green and Co., 1946. p. 247.

²Hutt, Max L. "The Use of Projective Methods of Personality Measurement in Army Medical Installations." Clin. Psychol. 1945, 1: 134-140.

Kent-Rosanoff Word Association, T A T, Bender Gestalt, In-complete Sentences, etc., and (3) the unstructured tests which permit the projection of the tests interpretation into the response given by the subject - Rorschach. Morgan³ lists four important methods for getting at personality evaluation. He lists (1) subjective evaluations in which he includes interview appraisals and appraisals on rating scales, (2) clinical appraisals which are also subjective but oriented in proper perspective, (3) personality tests which permit little unique organization of responses, and (4) projective techniques which present the subject with relatively unstructured and ambiguous situations, and require him to do something about it. Berg⁴ in discussing criteria measures used before and after therapy, describes the various approaches currently in use under the headings of (1) Ratings, (2) Psychological Test-Retest Techniques, (3) Physiological and Organic Measures, (4) Environmental and Achievement Correlates, (5) Verbal Behavior, and (6) Experimentally Induced Maladjustment. Traxler⁵ states that there are two broad approaches to evaluation of personality, one by means of tests and the other by more informal procedures. He then

³Morgan, John J. B. The Psychology of Abnormal People. New York: Longmans, Green and Co., 1937, pp. 101-108.

⁴Berg, Irwin A. "Measures Before and After Therapy". Clin. Psychol., 1952, 8: 46-50.

⁵Traxler, Arthur E. Techniques of Guidance. New York: Harper and Bros., 1945. pp. 98-154.

proceeds to break these two broad approaches down into a nine-fold classification: (1) records of uncontrolled observations, (2) rating devices, (3) behavior descriptions, (4) self inventories, (5) tests utilizing life situations, (6) paper and pencil tests of broad traits, (7) scales for specific traits or attitudes, (8) free association, (9) laboratory techniques.

Super⁶ seems to agree for the most part with Traxler but emphasizes a threefold approach: (1) by means of tests, (2) through rating scales and (3) by projective techniques.

While the various authorities use somewhat different wording, there is basic agreement upon the techniques used. The categorization scheme developed for this study has taken into account the proposed approaches which purport to establish a quantitative index of the adjustive status of individuals. That is, all of the commonly used approaches applicable to an adolescent population. A development of this categorization scheme will be presented in the following paragraphs.

An examination of the various proposed classificatory schemes discloses that nearly all writers in the field include a category of personal report secured by the means of responses to questionnaires and inventories. Many of these questionnaires and inventories are designed for school populations and are used widely in the public schools. It is therefore important to include a major category encompassing self-reports in our study.

⁶Super, Donald E. Appraising Vocational Fitness by Means of Psychological Tests. New York: Harper and Bros., 1949, pp. 481-531.

Various rating scales are also frequently mentioned and deserve a place in our scheme. Ratings made by adults - teachers, parents, psychologists, and others with sufficient opportunity to observe adjustment, have had considerable popularity in the evaluative studies of many different techniques which attempt to establish an adjustment index. Ratings of adjustment by adults using a variety of ratings scales is included as a major category.

Several authorities also mention ratings by close associates or peers. In a population composed of immature people, it was felt imperative to include a category of ratings made within that population by its own members. That is, adolescents place great emphasis on peer status and since adolescents often know their own fellows more intimately than the adults who come into contact with them, these ratings become increasingly important. It has also been intimated that the adolescent uses different standards from the adult in rating one of his fellows which is an additional argument for giving consideration to a peer rating in a comparative study such as this.

The increasing use and mention of projective techniques as an approach to personality measurement, indicates the need to incorporate in our study representative techniques in this area. At least those techniques that purport to arrive at an adjustment index as a facet of personality measurement, need to be represented.

Finally, it was deemed necessary to include a category that dealt with systematized direct observation. This category was used to meet the need for including a type of modified time sampling technique designed to establish the frequency of observable reactions thought to be related to adjustment.

These five broad categories make it possible to include all of the commonly mentioned techniques purporting to assess adjustment that are applicable to our population. In addition it was felt necessary to include certain other data for comparative purposes. It was felt that certain extraneous variables might have an effect on the direct measurements of adjustment and should be taken into account.

(a) Chronological Age.

Though the age range from fourteen years through eighteen years was not large, nevertheless the effect of these age differences had to be known. So chronological age was included as an additional measure.

(b) Differences in Intelligence.

It was felt that differences in intellectual ability should be included in these additional measures as it has been hypothesized that those of higher ability tend to be better adjusted.

(c) Length of Residence in the Institution.

The other additional measure which might have an effect upon some of the measures of adjustment was the differences in length of institutional residence. It was

considered possible that the length of residence in itself might be a factor that could introduce a spurious relationship into the correlation of some of the other techniques. It has also been hypothesized that lengthy periods of institutional living contribute to maladjustment at least partly through diluting the relationships conducive to emotional development. The effect of this variable needed to be ascertained.

(d) School Retardation.

A fourth variable was considered as some writers including Rogers⁷ emphasize school retardation and school acceleration as an index of a child's adjustment and include such an index in their list of criteria for adjustment. However, when the population of this study was examined, there was very little acceleration or retardation within the group. Therefore, such a measure was not included.

It was found possible then, in view of the schemes set forth in the literature and consistent with the practical suspects of the study, to consider approaches to determining adjustment criteria under five general headings: (1) Questionnaires and interviews, (2) Ratings by Adult Judges, (3) Ratings by Peers, (4) Adjustment Indices Derived from Projective Techniques, (5) Systematized direct Observation. In order to take into account extraneous variables with an unknown effect

⁷Rogers, Carl R. "The Criteria Used in a Study of Mental-Health Problems." Educ. Res. Bull., 1942, 21: 29-40.

upon the results secured through the use of techniques under these five headings, the following additional measures were made: (a) Chronological Age, (b) Intellectual Ability, (c) Length of Institutional Residence. These latter variables will be referred to in the study as Variables with an Unknown Effect.

Selection of Representative Techniques in Each of the Proposed Categories

The next problem was to select under each proposed category of approach to assessing adjustment, techniques and instruments that would be representative of the class. A number of criteria were used as a basis of judgment in selecting such techniques or instruments. In the first place any test to be included must receive frequent mention by authorities in the field and be commonly used. Any technique or test selected had to demonstrate reliability or lend itself to reliability tests within the course of its application which would indicate acceptable reliability. Selected techniques had to be reasonably easy to administer, applicable to the age level, experience and ability of the group studied, and lend themselves to quantitative scoring. In the case of rating techniques they had to be within the scope of training and understanding of the persons making the rating. Further, each technique or test selected must give the appearance of tapping, in a logical manner, the process of adjustment as set forth in Chapter II.

Within each approach it was felt that the representative techniques chosen should be somewhat different in make-up or emphasis but still represent the class to which they belong. To represent categories where a large number of similar techniques were available, two approaches were considered sufficiently representative of the class. Where similar techniques such as ratings were concerned, but with differing types of raters, representative types of raters available were exhausted.

Group I. Questionnaires and Inventories: This group covers the many well known paper-and-pencil tests which require self-report on the part of the respondent. Nearly every author who discusses this group lists many tests that would be applicable to our population and meet the major criteria for selection as set forth. Ellis⁸ in his review of the literature lists the disadvantages in using these types of instruments, but since they are used frequently and because many publishers of such instruments encourage the applications of such tests in school situations, it is necessary in a study designed to use most of the commonly used approaches, to select at least two such instruments. It becomes necessary to try to select commonly used ones which have a somewhat different approach. The typical questionnaire or inventory is illustrated by such tests as the Bernreuter Personality Inventory, The Bell

⁸Ellis, Albert. "The Validity of Personality Questionnaires". Psychol. Bull., 1946, 43: 385-440.

Adjustment Inventory, The California Test of Personality, The Cowan Adolescent Adjustment Analyzer, The Minnesota Multiphasic Personality Inventory, and The Heston Personal Adjustment Inventory. Most of these tests are listed as common by Cronbach⁹, by Buros¹⁰, by Super¹¹, by Greene¹² and by others who discuss the measurement of adjustment. If the reported reliability and validity coefficients are compared, it is rather obvious that most of these instruments have a high reliability but frequently report low validity coefficients, or dismiss the validity problem by discussing the instruments' usefulness when discriminating between school groups and known delinquents or some other group assumed to be composed of maladjusted persons. One test would appear to be about as good as another if judged on this particular criterion. Some are more applicable to the population of the study; for instance, the Minnesota Multiphasic is not applicable to an immature population according to present normative data available.

The selection finally made was somewhat arbitrary but both tests eventually decided upon meet the selection criteria. The California Test of Personality* was decided upon because it

⁹Cronbach, Lee J. Essentials of Psychological Testing. New York: Harper and Bros., 1949. pp. 313-338.

¹⁰Buros, O. K. The Third Mental Measurements Yearbook. New Jersey: Rutger's Press, 1949. pp. 23-114.

¹¹Super, Donald E. op. cit., pp. 481-531.

¹²Greene, E. B. Measurements of Human Behavior. New York: Odyssey Press, 1941. pp. 521-597.

*Appendix pp. 288-289. (Whenever possible all tests and manuals used in this study are included in the appendix.)

is frequently used in schools. It is easy to administer. Reliability figures reported are fairly high (see page 98). It is couched in language easily understandable for our group. It has been used a number of times in validation studies. The scoring is straight forward and one which gives a number of sub-area scores which might be useful when comparing with other instruments. It seemed to tap the facets of adjustment through the medium of self-report by considering adjustment from the standpoint of self-integration and of social participation, both of which cut across the specific major factors developed in our concept of adjustment. The selection of The California Test of Personality was also somewhat influenced by a recent study of Edmiston and Baird¹³ who had used some members of the present population (when they were somewhat younger). In that study a comparison was made between adjustment ratings (as secured on this test) of institutional school populations and those of public school populations. This study concluded that in general, institutional children indicated poorer self adjustment than non-institutional children, but evidenced higher social adjustment.

In order that we might have another measure based on the same self-report approach but from a slightly different angle, we chose to include as a second representative measure Heston's Personal Adjustment Inventory*. This test has not been used as

¹³Edmiston, R. W., and Baird, Frances. "The Adjustment of Orphanage Children." Educ. Psychol. 1949, 40: 482-488.

* Appendix pp.290-291 .

frequently as the California Test of Personality, primarily because it is a much newer test. It differs from the California in that it measures six factors which were developed by the author through a factor analysis of older inventories and questionnaires as well as through numerous item validation studies. Items are not grouped categorically as in the California but are scattered throughout the test. A high reliability for the test is reported (See page 100). Validation studies are reported in more detail than for most similar tests and appear to be more adequate. It is easily administered and norms are available for an adolescent population. It is somewhat more difficult to score than the California, but is straightforward and meets this criteria demand. Its phraseology was considered to be a little difficult for some members of the population but this was not thought to be a serious disadvantage when other tests of its type were considered. It provided six scores that, when described as factors, could be reconciled with the developed concept of adjustment. By making six scores available of factors that have been described carefully and developed through statistical analysis, it gave more data for comparison with that secured from other approaches. While about as good arguments for selecting any one of several other tests of the questionnaire or inventory type might be advanced, these two, The California Test of Personality and The Heston Personal Adjustment Inventory, were believed to be representative of this approach with all of its inherent strength and weakness, and as such were selected.

Group II - Ratings by Adult Judges: Ratings have been employed for the measurement of various facets of individual behavior. They are a means of getting impressions in a quantitative comparable form from a number of qualified judges. If the typical sources of error mentioned by Cronbach¹⁴ such as halo effect, generosity error, ambiguity of terms, and all or none category errors are taken into account, they may be made to furnish more reliable results. They may also be improved if the results of more than one rater's efforts are averaged.

In this study it seemed not only necessary to use ratings secured from different persons in close daily contact with the subjects, but also ratings using different types of rating scales. Three different rating scales were therefore selected under this approach; each filled out by persons representing a different category of judges.

The first rating that was needed was an over-all adjustment rating from adults in daily contact with the student in question. Quite frequently measures of adjustment used in validating a particular instrument to assess adjustment have been so determined. The persons in closest daily contact with each boy of the population were his teachers and his houseparents. It was decided to use a rating scale employing descriptions of

¹⁴Cronbach, Lee J. op. cit., pp. 397-403.

This scale was found to be appropriate for use by these raters. It meets our criteria for reliability (see page 105). It seemed to be tapping facets of our concept of adjustment in forcing the rater to make decisions on the basis of rather clear-cut behavior descriptions. Its appropriateness for inclusion seemed clear.

Since neither of the above ratings was done by a highly trained professional worker and since this is frequently done in studies, a rating by a person with psychological training was used as a third type of approach. Within the institutional and school settings the psychologist is called upon to judge the adjustment level of particular individuals in order to facilitate planning with them. In this setting the writer has had to make adjustment appraisals based upon the accumulated knowledge of the person's past behavior, his reactions in testing situations, and his reactions in an interview situation.* An over-all rating based on this type of knowledge, even though reliability and validity of the procedure was not clear cut, was felt to be justifiably included for the purpose of comparison with other measures. (For a more complete description see pages 107-108). Because such judgments are commonly made in a variety of situations incident to counseling, therapy, occupational planning, etc., they should merit consideration in this study.

Group III - Ratings by Peers: Moreno, Jennings, Northway, Bonney, Bronfenbrenner and others have stressed the

* Appendix Page 296.

importance of peer status as an aspect of adjustment. The assumption seems to be that the degree of individual adjustment is reflected through the individual's acceptance or rejection by his own group. It has been reported by Bonney¹⁷, for example, that the correlation between self-reported adjustment as secured from the California Test of Personality and sociometric data using a fourth-grade population, was as high as plus .49. Although as Cronbach¹⁸ remarks, there is no assumption that reputation is a true report of personality - yet, there is significance in how one's associates view him. There are two slightly different methods of securing a rating of a sociometric nature that are rather prevalent: guessing whom a personality sketch represents and choosing a companion for a shared activity. It was felt desirable to include one of each in our comparison of adjustment measures.

The "Guess Who" technique, a common method in use by those considering group status, was introduced by Hartshorne and May¹⁹ and required the naming of associates to fit certain thumbnail character sketches. It has been shown that the method is reliable (see page 109). Behavior sketches can be

¹⁷Bonney, Merl E. "The Constancy of Sociometric Scores and Their Relationships to Teacher Judgments of Social Success and Personality Self-Ratings." Sociometry, 1943, 6: 409-424.

¹⁸Cronbach. op. cit., 407.

¹⁹Hartshorne, H., and May, M. A. Studies in the Nature of Character II- Studies in Service and Self Control. New York: Macmillan, 1929. p. 559.

included that illustrate, in overt behavior form, the facets of adjustment suggested in Chapter II. In fact, the sketches based on the work of Tryon²⁰ fit our descriptions of facets of adjustment very well. These descriptions were developed according to the clusters of traits found acceptable and non-acceptable by boys in an age range similar to those included in the present study.* It can be used by the population of this study as each boy has experienced rather intimate group living over a considerable period of time with each of the boys making up the study population.

The other method of establishing a sociometric rating which seems to get at such relationships from a slightly different angle is based on the work of Moreno²¹, Bronfenbrenner²², and Jennings²³. The latter's work illustrates the present approach where companions are chosen or rejected for

²⁰Tryon, C. M. Evaluation of Adolescent Personality by Adolescents. Monograph of the Society for Research in Child Development, 1939, Vol. IV, No. 4 83 p.

²¹Moreno, J. L. Who Shall Survive? Washington D.C.: Nervous and Mental Disease Publishing Co., 1934. pp. XVI + 440.

²²Bronfenbrenner, Urie, "A Constant Frame of Reference for Sociometric Research". Sociometry, 1943, 6: 363-397.

²³Jennings, Helen H. "A Sociometric Study of Emotional and Social Expansiveness" (In) Barker, R. G., Kounin, J. S., and Wright, H. F. Child Behavior and Development. New York: McGraw-Hill, 1943, 527-543.

* Appendix pp. 297-298 .

specific activities. This technique might be designated a "Companionship Choice Test" where activities suggested are in harmony with those usually available in the selected environment. This too is a commonly used technique. It has been shown to be reliable in similar circumstances of use (see page 111). A score can be easily established and again it is adapted to use with this population as the boys are constantly making such choices within the group. It is not easy to demonstrate how it fits into the measuring of the concept of adjustment, unless we assume that level of adjustment is related to peer status. In the activities chosen we make the assumption that boys evidencing severe maladjustment will not be chosen by their peers to participate. Since it has been used where such an assumption has been implied or accepted, it is a technique which we can not afford to leave out of our study scheme.*

Group IV - Adjustment Indices Derived from Projective Techniques: Numerous projective techniques have been proposed in the last twenty years to provide relatively unstructured situations in which the subject may organize the test stimuli in line with his unique reaction tendencies. Cronbach²⁴ states

²⁴Cronbach, op. cit., pp. 433-455.

* Appendix pp. 299-300 .

that the two most widely used techniques are the Rorschach and the Thematic Apperception Test. He also mentions the Mosaic Test, the Picture-Frustration Test, the sentence completions, spontaneous paintings, Szondi, the Verbal Summator, word association tests and the World Test. Bell²⁵, and Anderson and Anderson²⁶ also mention similar lists. For our purposes it is necessary to select at least two of these techniques which purport to arrive at an adjustment score and meet our other criteria. A number of these techniques, because of scoring problems, were not applicable to comparison with the other measures used with the population. Two techniques which were representative of this approach and which make claims for assessing adjustment status, lend themselves to group administration and provide methods for obtaining results in numerical form. These are the Group Rorschach and the Rotter Incomplete Sentence Test.

One technique chosen was the Group Rorschach* developed

²⁵Bell, J. E. Projective Techniques. New York: Longmans, Green and Co., 1948. XI - 533.

²⁶Anderson, Harold H. and Anderson, Gladys L. An Introduction to Projective Techniques. New York: Prentice-Hall, Inc. 1951. V + 720.

* Appendix p. 301 .

behavior based upon the seven facets of adjustment outlined in Chapter II* as a basis for securing an over-all rating (See pages 102-104 for a more complete description). It was further hoped to increase the reliability of this instrument by averaging the ratings of these teachers, at least two, and one houseparent. With all of the weaknesses of such a procedure it seemed that such a rating would come close to the kind of judgments in regard to adjustment usually made in school and institutional situations and should therefore be included for comparison with other measures.

It was felt that a second rating should be secured on each boy utilizing a commonly used standardized rating scale. When the literature was examined for the type of scale available for the present population, it became evident that the Haggerty-Olson-Wickman Behavior Rating Schedule B* continued to be commonly used and was favorably reviewed by such writers as Cronbach¹⁵ and Traxler¹⁶. It was found to be primarily designed for younger age groups but the literature reports satisfactory results when applied to adolescent groups. It was found possible to secure independent ratings from the two men in the Dean of Boys' office who had close contact with each boy in the population.

* Appendix pp. 292-293 .

* Appendix pp. 294-295 .

¹⁵Ibid., p. 400.

¹⁶Traxler. op. cit., p. 150.

by Harrower-Erickson²⁷ and modified to give a numerical adjustment score by Munroe²⁸. This technique met our major criteria. It was applicable to the population group. It was possible to arrive at a fairly straightforward score. The method had been used frequently with groups. Reliability and validity studies had been made (see pages 114-115). It was based on a structuralized concept of personality that could be rationalized with certain facets of the concept of adjustment as developed. For example, this technique assumes an integration of personality which, if in existence, will be reflected by balance between particular types of Rorschach responses. So, the inclusion of some form of the popular Rorschach technique was felt to be necessary in this study.

The other technique chosen was the Rotter Incomplete Sentence Test* developed during World War II by Rotter and Willerman²⁹ and further adapted to a college population by Rafferty³⁰ under Rotter's direction. This test purports to

²⁷Harrower-Erickson, M. R., and Steiner, M. E. Large Scale Rorschach Techniques. Springfield, Illinois: Charles C. Thomas, 1945. V + 419.

²⁸Munroe, Ruth L. Prediction of the Adjustment and Academic Performance of College Students by a Modification of the Rorschach Method. Applied Psychology Monograph No. 7, Stanford, California; Stanford University Press, 1945.

²⁹Rotter, J. B., and Willerman, B. "The Incomplete Sentence Test as a Method of Studying Personality." J. Consult. Psychol. 1947, 11: 43-48.

³⁰Rafferty, J. E. A Study of the Incomplete Sentence Method of Personality Investigation Applied to College Men, Unpublished M. A. Thesis, O.S.U., 1947.

* Appendix 302.

yield a quantitative score that may serve as an index of adjustment. A high school form existed though scoring norms had to be adapted from those of college students to the high school group. The procedure was approved by Dr. Rotter in a personal interview. Reliability and validity data were available (See page 117). It assumes that maladjustment will be reflected through an accumulation of well defined conflict responses. It attempts to get at adjustment through the reflection of emotional tone in the verbal expression area. Because of its ease of administration, its straightforward scoring, and claims as an adjustment assessing instrument, it was included in the study. Since it is fairly recent in its present form, it had not been used as commonly as some of the other included measures.

Group V - Systematized Direct Observation: Many writers including Cronbach³¹ mention direct observation in various every-day situations as an approach to securing an adjustment assessment. It is commonly recognized that such a technique is fraught with errors as no two circumstances - even though outwardly appearing similar - can be experienced exactly the same by the respondent. It is difficult to secure enough of a sampling of such typical behavior in ordinary situations to be sure that you have a record of typical behavior. In addition, there are errors arising from differences in the way

³¹Cronbach. op.cit., pp. 386-395.

the observer views the behavior exhibited. He is subject to attention lapses unless what he is looking for is very well defined. It is difficult to observe without the presence of the observer changing the field of behavior in which the one observed reacts. Nevertheless, since there have been claims made in regard to this approach, it was decided to include some form of systematized direct observation if only so that its merits or difficulties might be compared with the other measures.

In making a decision as to what technique would best represent this approach, it was felt that the work of Olson³² might be used as a basis to construct a modified time sampling technique that would provide as objective approach as possible and sample as many situations as possible within the time available. Since our population was accustomed from time to time to seeing members of the psychology department drop into classrooms, work shops, and recreation areas for the purpose of observation, it was felt that a schedule of such observations could be conducted without specific knowledge on the part of the boy observed that he was being observed. It was possible to select defined behavior occurrences related to the concept of adjustment. Inter-observer reliability was possible by using two observers for a sampling of the observations. (See pages 119-120.) Since some form of time sampling seemed to be

³²Olson, W. C. The Measurement of Nervous Habits in Normal Children. Minneapolis: The University of Minnesota Press, 1929. pp. 2-87.

necessary in order to reduce sampling biases, observer biases, and situational biases, this was the technique finally selected to provide comparison with other approaches.*

Variables With an Unknown Effect

As has been mentioned previously, it seemed necessary to include for comparative purposes certain variables known to exist within the population group. It was known that chronological age differences were present and in view of observed differences in adjustive status, it seemed imperative to see whether these measures were applicable to the age range of the population without reflecting differences in age range.

It was also known that the intellectual potentialities as usually measured were different within the group. Since we have such differences, what relationship do they have with the measures supposed to reflect adjustive status? It was felt that a mental age in months, if compared with the data secured from the other measures, would indicate if there were a relationship and with what particular approach the relationship would be most apparent.

Since the members of our population had resided for varying periods of time within the institution, it was desirable to see if length of residence would be reflected by the techniques used to assess adjustive status. Some consideration was made of the possibility that the boy who had resided longer in the institution

* Appendix pp. 303-304 .

might reflect some differences when appraised by the usual criteria in contrast to the more recent arrival. By including this variable some light might be thrown upon the question which is often asked: What effect does a long period of institutional residence have upon the usual measures of adjustment?

The measures discussed in this section were chosen to be included in the study. A more detailed description of each technique and how it was used in the study will follow in the next section. To recapitulate and to group all selected indices so that they may be easily viewed, the following outline of the selected approaches and included measures is presented.

Group I - Questionnaires and Inventories

1. California Test of Personality

- a. Self Adjustment
- b. Social Adjustment

2. Heston Personal Adjustment Inventory

- c. Analytical Thinking
- d. Sociability
- e. Emotional Stability
- f. Confidence
- g. Personal Relations
- h. Home Satisfaction

Group II - Ratings by Adult Judges

1. Rating by teachers and houseparents.
 - i. Average rating of two teachers and one houseparent.
2. Rating using Haggerty-Olson-Wickman Behavior Rating Schedule.
 - j. Average rating by personnel in Dean of Boys' office
3. Rating by psychologically trained personnel
 - k. Rating by psychologist based upon case material, close acquaintance, and a semi-structured interview.

Group III - Ratings by Peers

1. Using the "Guess Who" technique
 1. Algebraic score derived from selection for favorable and unfavorable descriptions.
2. Using the "Companionship Choice" technique.
 - m. Algebraic score derived from choice and rejection.

Group IV - Adjustment Indices Derived from Projective Techniques

1. Group Rorschach
 - n. Score derived through adaptation of Munroe.
2. Rotter Incomplete Sentence Blank
 - o. Score derived through adaptation of Rafferty's norms.

Group V - Systematized Direct Observation

1. A modified time-sample of behavior
 - p. Score based on occurrence or non-occurrence of specified behavior within a given time limit.

In addition certain extraneous variables were measured.

For convenience they may be listed below:

Variables with an Unknown Effect

1. Age differences
 - q. Chronological age in months
2. Differences in Intelligence
 - r. Mental Age in Months
3. Length of Residence
 - s. Months of residence in the O. S. & S. O. Home.

Detailed Description of Each Technique
Chosen and Specific Procedures in Using Each Technique

General Considerations. Beginning early in April of 1950 all tests which could be administered to the group as a whole, were scheduled one week apart. During the first testing session all the boys were told that they had been selected for a series of tests which by their honest and full cooperation might help the psychologist to understand them better and also might help other boys of their age to be better understood. They were told that the test protocols would not have their names upon them and that only the writer would be able to identify their paper from the code number. They were further reminded that in the past they had been most frank in their expressions of feelings in person-to-person interviews and that the same performance was expected in a group situation. All members of the group met in the same room each week and were subjected to exactly the same testing situations. Three cases of illness during the testing were tested immediately in the office of the writer after the boys were released from the hospital.

The group tests were administered over a period of five weeks. All sessions were scheduled for approximately an hour period with a two-hour period scheduled for the Group Rorschach. The California Test of Personality was used the first session. The "Guess Who" was scheduled for the second session, the Rorschach at the third, the Heston Personal Adjustment Inventory

at the fourth, and Rotter's Incomplete Sentence Test and the "Companionship Choice Test" at the fifth. Throughout the group testing cooperation appeared satisfactory, as all boys stayed at the tasks set for them. Almost all of the protocols were completely filled out and all were scoreable. No scoring was attempted until the other measures were secured.

While the group testing was being done materials for securing ratings from teachers, houseparents, and deans were distributed by personal contact. All materials were explained and the task outlined through a personal interview with each person concerned. All persons making such ratings were requested to return all materials by June 15, 1950, the close of the school year. As materials were returned they were checked by the writer's assistant to see if the task set forth had been performed, and were filed away until such time as all data were in so that no ratings were known to the writer until after he had made his own.

After the group testing was completed, the time sampling was carried out by the writer and his assistant by conforming to a pre-arranged schedule during the last six weeks of school. During July, Aug., & Sept. of 1950 the personal interviews which formed a part of the background for the psychologist's rating were conducted and recorded under code numbers. Other measures were easily obtainable from the files in the department.

To insure a minimum of bias in handling the protocols obtained by the variety of techniques, a code number was used for each boy. This code number was assigned at the beginning of the study. It consisted of the four digits of telephone numbers taken from a page of the local directory and assigned through the process of drawing the names of the boys from a hat. Each answer sheet or rating record had the boy's name stapled to the sheet and the code number on the sheet. Whoever completed the record simply tore off the stapled name leaving the protocol identifiable only by the code number. This method permitted the handling and scoring of all data without knowledge of whose record it was until the scoring was complete.

The level of rapport throughout the study was judged to be high, perhaps higher than that usually found in most situations. This was possible since most of the boys were well known to the writer through mutual participation over several years in a variety of activities. The psychologist had been on excursions, camping trips, fishing trips, recreational teams, etc. with all of these boys. Within the institution the psychologist serves as a counselor without disciplinary duties. He had frequently discussed with individual boys such difficulties as anti-social activities, pranks, rule infractions, etc. but in a nonpunitive capacity. Over the years he had shared many intimate confidences to the extent that there seemed to be a feeling of frankness in almost all of his relationships with these boys. As a result of

mutual trust most of the participants in the study appeared to be trying as honestly as possible to respond conscientiously to the measuring techniques used. Perhaps an example or two will illustrate the general level of rapport existing. One boy had developed a serious stealing behavior pattern but had been trying to understand his situation and do something about it. During the time of this study he had found the accessibility of class funds too tempting and had stolen five dollars. A few days after spending the money, he came to the psychologist and laid out the facts and asked for help in getting the situation straightened out and also advice on how to improve his habits in the future. With counsel he was able to work out a satisfactory solution for the immediate situation and take some positive steps to reduce the occurrence of the unacceptable behavior. Needless to say, had there been no confidence the boy would have attempted some other way out. Another boy who had rather extreme sexual conflicts was quite frank in reporting such interpretations on the Rorschach. If he had felt that his problem was not understood, he would hardly have done this. Still another boy who was quite disturbed over the fact that an older brother had just been sentenced to a penal institution, came in to discuss the situation before there was general knowledge of the occurrence. These examples could be multiplied but will serve to illustrate the level of relations existing between the boys making up the population and the person conducting the study.

Description of Each Measure and Procedure Followed in Administration. In the following pages a detailed description of each instrument will be made. A more detailed description of administrative procedures will also be made. Steps taken to derive comparable numerical scores for all measures will be presented. The various instruments will be taken up in the order presented in the outline on pages 91-92. The appendix of this study contains copies of test blanks, manuals, and rating scales.

Group I - Questionnaires and Inventories

The California Test of Personality-Secondary Form A, for Grades 9 - College was used. Form A at this level had not been used with this population previously. This test contains two principle sub-topics, Self Adjustment and Social Adjustment. Each sub-topic is made up of six sub-tests consisting of fifteen questions to be answered by drawing a circle around either "yes" or "no". The authors, Tiegs, Clark, and Thorpe have taken care to phrase each question to minimize the student's tendency to protect himself through the painting of a better self portrait than actually exists. The items chosen as stated by the manual were selected through a study of over a thousand adjustment situations facing students of these ages. The items were included on the basis of judgments by teachers and principals as to their significance and validity, by student reactions

as to willingness and ability to respond and an item analysis by means of the biserial r technique. Reliabilities computed by means of the Spearman-Brown Formula based on populations ranging from 272 to 292 are reported for total scores to range from .918 to .933. Reliabilities for the two major components range from .867 to .908. The sub-test reliabilities are lower ranging from .60 to .87. Data given in the manual in regard to validity is discussed under four headings: selection of items, personality components, test item disguise, and limitations. These discussions relate to the intrinsic nature of the test and its usage. No evaluative studies are provided which might indicate the usefulness of the instrument in indicating adjustment level as validated against some agreed upon outside criterion. Buros³³ reports some twenty-four studies which have utilized this test as a criterion for adjustment. The reviews in Buros question the authors' claims for the test on the basis of the vagueness surrounding the validity data.

The test was administered to the sixty-six boys making up the population group in strict accordance with the directions for administration found in the test manual. Since this test was the first in the series to be given, rapport building statements as previously mentioned were made prior to actual administration. Prior to the testing situation each test blank had the name of the boy stapled to it and the code number of the boy

³³Buros. op. cit., pp. 55-58.

written on the blank itself. Upon completion of the test each boy removed his name from the test. Scoring was accomplished by following the scoring directions found in the manual. The test is designed to show a profile of scores in each of the twelve sub-test areas in percentiles. For our purposes it was decided to use the raw score total for each of the sub-topics since relatively higher scores in these two major areas indicated relatively higher adjustment according to the claims of the test. This method provided us with a measure of self adjustment and a measure of social adjustment with scores apparently distributed normally.

The second major instrument chosen in this group was the Heston Personal Adjustment Inventory. This test measures six traits of personal adjustment: (1) Analytical Thinking, (2) Sociability, (3) Emotional Stability, (4) Confidence, (5) Personal Relations, (6) Home Satisfaction. These traits of adjustment were developed through the process of analyzing existing tests including Bell's Adjustment Inventory, Darley and McNamara's Minnesota Personality Scale, Guilford's Inventory of Factors S T D C R, Guilford and Marten's Inventory of Factors G A M I N, Evans and McConnell's Minnesota T - S - E Inventory, and Thurstone's Personality Schedule. The test consists of 270 questions to which one may reply with a "yes" "no" or "undetermined". Each item refers to only one of the trait scores. The items for each trait are systematically scattered throughout the

test. High school norms are based upon testing in four different Indiana High Schools. Reliabilities reported in the test manual were computed by means of the Spearman-Brown Formula based on 100 students, 50 men and 50 women. Reliabilities for each trait score are reported as follows: analytical thinking .855, sociability .910, emotional stability .862, confidence .835, personal relations .800, home satisfaction .867. These reliability coefficients are reported to be of the same magnitude as those obtained from two other similar studies. The validity problem was approached by three different methods (1) internal consistency, (2) psychological meaningfulness of the items, (3) and validation against independent criteria. Items were refined through three internal consistency studies where items to be included had to discriminate successfully between the upper and lower 27 per cent of the samples chosen. Through the second method no item was assigned to a scale on the basis of discriminatory value alone. The item had to make sense psychologically in the judgment of the author and his co-workers. By the third method thirty-four De Pauw faculty members were asked to agree with, disagree with, or refuse to judge each student's percentile scores when compared with their judgement on the basis of acquaintanceship with the student. These faculty members agreed about 65 percent of the times, disagreed about 10 percent, and refused 25 percent of the times on five of the traits. Half of the judgments were refused

on the home satisfaction trait. Armstrong reports in another study quoted in the test manual that the correlation between the scores made on the six traits and ratings made by seven close acquaintances range from .28 to .70. Another study is reported showing r 's between scores and self ratings on these traits ranging from .31 to .62. Another study comparing the scores on the Heston with scores on the Minnesota Multiphasic, show positive agreement between similar traits making up the two scales. The manual also reports two studies by Cook which indicate that the Inventory differentiates better between college men and men who are inmates of a reformatory than between high school boys and boys who were inmates in a juvenile correctional school.

This test was administered at the fourth session of testing following the recommended directions as set forth in the manual. The same general procedure as described earlier was followed. Three boys were in the hospital and were re-tested the following day after being discharged from the hospital. The scoring was done by hand using the stencils provided. Since high scores in each trait were supposed to represent the better adjustment, these raw scores were used to establish a score for each trait to be compared with other measures.

Group II - Ratings by Adult Judges

To secure ratings in regard to adjustment on each of the

56 boys, a Student Adjustment Rating Sheet was designed following the analysis of the aspects of adjustment set forth in Chapter II. (See Appendix pp. 292-293). The format followed to a certain extent that of the American Council on Education Personality Report. Each facet of adjustment was defined as clearly as possible. Five behavior descriptions were set opposite the description of each facet. These descriptions ranged from behavior judged by the writer and his assistant as very good - - to behavior judged as very poor. The teacher or supervisor was required to check the most applicable description under each of the seven facets and then to make an overall rating on a scale eighteen centimeters long on the final page of the scale. Above this dotted line the degrees of adjustment were described as maladjustment, somewhat maladjusted, average adjustment, fairly well-adjusted, and well-adjusted. This provided a guide for the judge in helping to decide just where the boy should be marked on the adjustment continuum. A manual was prepared to accompany the test which covered the concept of adjustment and explained the rating system. This manual is included in the appendix.

This instrument was used to secure an average rating by having two teachers who had had close acquaintanceship with the boys of the study, make independent ratings of each boy. At the same time the boys' houseparents were asked to make independent ratings on each of their boys using this same instrument. The Student Adjustment Rating Sheet and the

accompanying manual were explained individually to each rater. They were asked to remove the stapled name of the boy which appeared on each sheet to be rated by a particular rater. A discrete score was secured for each individual by measuring along the 18 centimeter scale and reading the score in millimeters. This scheme follows the recommendations made by Champney and Marshall³⁴ on securing optimal refinement of the rating scale. Scores were thus secured from three different raters for each boy and in order to increase their reliability, as Cronbach³⁵ suggests, they were combined into an average rating.

Interjudge correlations give some indication of the rather low reliability of the instrument when used by single rater. When the ratings of two teachers were compared, an r of $.486 \pm .063$ was secured. When the ratings of Teacher A were compared with the ratings of a houseparent, the correlation was only $.268 \pm .077$. The correlation between Teacher B and the houseparent was $.363 \pm .072$. The average rating including the independent rating of the three judges has a slightly higher reliability of $.582 \pm .055$. These low correlations were found despite efforts to reduce halo effect, to eliminate generosity error, to reduce ambiguity of terms to a minimum and to make clear the rater's task.

³⁴Champney, Horace, and Marshall, Helen. "Optimal Refinement of the Rating Scale," J. Appl. Psychol., 1939, 23: 323-331.

³⁵Cronbach, op. cit., p. 402.

The inclusion of such unreliable data can only be warranted when one considers the frequency of the use of such criteria. For example, Ellis³⁶ lists forty-four attempts to validate personality questionnaires against the ratings given by teachers, friends, associates and others.

The next rating of adjustment status in this group was secured by using the Haggerty-Olson-Wickman Behavior Rating Schedule B.^{*} It is one of the older and more frequently used scales employing a forced choice technique. While originally designed for elementary pupils, it has been found by the authors to be applicable to high school students as well. They report in their manual that age and grade differences in scores are negligible. Schedule B is composed of four divisions of traits: intellectual, physical, social, and emotional. There are a total of thirty-five graphic rating scales assigned to traits distributed in these four areas. Below each trait are five descriptive phrases which are to assist the rater in making a quantitative judgment. Each of these five descriptive phrases has been assigned a weight in terms of its relationship to Schedule A which consists of frequencies of occurrence of fifteen behavior problems related to adjustment.

An overall score from the Haggerty-Olson-Wickman Behavior Rating Schedule B, may be secured by adding the weights

³⁶Ellis, op. cit., p. 411.

*Appendix pp. 294-295.

assigned to the item checked by the rater on each of the thirty-five graphic scales. This rating was secured in this study through instructing the two men in the Dean of Boys' office to make such a rating independently after a personal conference with the writer to insure understanding of the manual and the schedule. Each was familiar with the boys in this study as this office directly supervises housing of the boys and deals directly with related problems. Both men had the equivalent of the training of high school teachers and were capable to make such a rating. In order to improve the reliability the two scores for each boy secured through these independent ratings were averaged. This procedure is recommended by Traxler³⁷ in his review of this schedule as a method to increase its reliability.

The authors report a reliability coefficient of .86 between repeated ratings by the same teacher on elementary school children. The reliability of a single rating, when split halves are used, is reported by the authors as .92. The intercorrelation between the raters in the present study was found to be $.70 \pm .04$. The reliability for the average rating made by the two Deans using the Spearman-Brown prophecy formula becomes $.82 \pm .03$. The scale has been validated against frequency of referrals to the principal's office in one school and correlated .76 with such referrals. Scores

³⁷Traxler, op. cit., p. 150.

have also been validated against Schedule A which lists frequency of overt behavior disturbances and resulted in a correlation of .60. The authors state that they feel the scale over-emphasizes the aggressive types of nervous and emotional disorders.

A third rating in this group was made by the writer who was serving as the resident psychologist for the institution. As stated by Greene³⁸ interviews have frequently been used to arrive at important conclusions in regard to a client. Much depends upon the skill of the interviewer, the degree of rapport, and other similar factors. The trained person's rating has been used frequently in clinical work where case histories, testing records, and interviews are combined to arrive at a diagnosis of client behavior. At the O.S. & S.O. Home comprehensive records are kept by the Social Service Department, The Psychology Department, and The School. All of these sources plus an acquaintance of several years with many of the boys in the study, were used to arrive at an overall rating of adjustment. Over a period of three years during the writer's employment at the institution hundreds of evaluative interviews have been held with students. Over that period of time it has been possible to develop a sequence of topics to be covered which have seemed to be empirically justified as aids in clarifying the adjustment status of students. Over this same period a very good de-

³⁸Greene, op. cit., p. 570.

gree of rapport has been built up between the department and students. As a result most of them, knowing that their problems are treated confidentially and in an objective manner, are able to discuss problems with a remarkable degree of frankness. The interview outline used in this study is the result of experience and covers six major areas: Interests, School Adjustment, Cottage and Campus Adjustment, Health, Social, Emotional and Sexual Adjustment and Family Relationships. Each area contains a number of sub-topics which have been found pertinent to reveal the student's reactions in those areas. The order of occurrence of topics has been found to be such as to arouse the least resistance but no inflexible moving from one topic to another is used. Rather each area is approached naturally and easily without a series of probing questions and answers. The interview outline merely serves as a guide and notes are jotted down during the guided conversation. It is understood in the beginning that as an aid to memory, facts will be jotted down but that they will be available only to the psychologist.

To make these ratings the psychologist scheduled interviews during July, August and September of 1950 with each of the sixty-six boys in alphabetical order. Not more than two interviews were conducted per day, each lasting approximately an hour. Prior to an interview with each boy the department files, the school files, and the Social Service files were carefully studied. Each interview followed the outline pre-

sented in the appendix.* In the early rapport-building stage a remark like this was made to each student, "You won't mind my jotting down some of the things we discuss as we go along, as I find my memory won't permit me to remember how you feel about certain things. Of course these notes are for our own use in recalling at a future date, just what we discussed and won't be used by other persons on the campus." This has always seemed to work well as such personal matters as involvement with authorities, relationships with other students, intimate family problems, severe behavior problems, sexual problems, etc., appear to be discussed frankly and no more resistance is encountered than would be expected when discussing any conflict area.

Immediately following each interview a rating was made on an eighteen centimeter adjustment scale exactly like the one used by teachers in filling out the Student Adjustment Rating Sheet. Discrete scores were computed in the same way by reading off in millimeters the distance toward the well adjusted end of the scale.

Reliability figures for the instrument were obtained for a sample of twenty students by having the writer's assistant independently go through the same process prior to the interview and then listen to the interview and make an independent rating. This was accomplished by means of a hidden microphone connected through a public address sys-

*Appendix, p. 296.

tem to a speaker in the assistant's office. A rank order coefficient of correlation of .76 was found which was indicative of the reliability of the method. Validity of such a method may be clarified somewhat through comparisons of other measures used in this study.

Group III - Ratings By Peers

The first of the ratings to be secured in this group was obtained through a "Guess Who" test. This test (included in the appendix)* was composed of twenty-five brief descriptive phrases of behavior couched in language understood by the boys in this population. The descriptive phrases were based upon the work of Tryon³⁹. The phrases described the traits showing highest degree of favorability for boys of this age when subjected to cluster analysis. Phrases were also constructed for the opposite type of behavior to show unfavorability. This is much the same procedure used by Tyron in constructing her Opinion Test. Twelve pairs of opposites were taken directly from her work and one further trait description was added which had been found to mark certain boys who are rejected by their peers at the O.S. & S.O. Home.

It is hypothesized that the boys chosen on the basis of exhibiting favorable traits are accepted by their peers

³⁹Tryon, op. cit., pp. 1-83.

*Appendix, pp. 297-298.

and are thus reflecting a higher degree of adjustment to their environment. Reliability figures were reported by Tryon in regard to the Opinion Test which is very similar to this test. She reports a reliability ranging from .49 to .90 using the split half method and applying the Spearman-Brown formula. On two tests ten days apart she reports with several groups, reliabilities of .75 and better. We found with a split half method and then applying the Spearman-Brown formula a reliability coefficient of .95.

This test was given to all sixty-six boys in the second session of group testing. Along with the test each boy was given a sheet containing in alphabetical order all of the boys' names in the study. It was requested that selection be restricted to the boys' names appearing on the sheet. Prior to the test the group was reminded that we were interested in finding out more about boys of their age, their likes, their dislikes, and how well they could size up each other. They were further reminded that their replies would be confidential and would not be used against any boy in any manner. They were instructed to attempt a guess for each description, to use full names, and to refer to the alphabetical list if they needed help with spelling. Nearly every protocol was completely filled out. Scores were determined in the same manner that Tryon⁴⁰ determined her scores. If a boy was mentioned for a favorable description

⁴⁰Ibid.

which were items A, C, F, G, I, J, M, O, P, R, W, and Y he received a plus 1 credit for each time mentioned. If a boy was mentioned on an unfavorable item B, D, E, H, K, L, N, Q, S, T, U, V, and X he received a minus 1 credit on each item mentioned. Total scores were the algebraic sums of times mentioned. The scores indicated a normal distribution after a constant had been added to make all scores positive with the more frequently mentioned person on favorable characteristics receiving the highest score.

In order to secure another measure of social status, hypothesized to be related to adjustment, the other instrument used in this grouping was a "Companionship Choice Test" (included in the appendix)*. This was based on the work of Moreno⁴¹, Bronfenbrenner⁴², Jennings⁴³, and others. This test was given at the beginning of the fifth session of group testing. It consisted of setting up five activities that were desirable and natural for the environmental setting and asking each boy to make a choice 1, 2, and 3, of those boys whom he would prefer to share such an activity with him.

⁴¹Moreno, op. cit.

⁴²Bronfenbrenner, op. cit.

⁴³Jennings, op. cit.

*Appendix, pp. 299-300.

He was also requested to name 1, 2, and 3 boys with whom he would not wish to share the activity. This last step was felt to permit us to meet Gate's and others'⁴⁴ criticism directed at limiting such tasks to positive choices:

We cannot always infer that the persons who are ignored when people name whom they like are persons who would be singled out if their associates were asked to name whom they actively dislike.

Jennings⁴⁵ reports reliability figures based upon retests at four-day intervals on a test similar to ours. She reports a reliability coefficient of .96 for positive choices and one of .93 for rejection. The reliability over a longer interval appears to drop as she found a reliability coefficient of .65 for positive choices and .66 for rejections when the interval was increased to eight months between testing. Her study was based upon girls in a state training school. Using a split-half technique and the Brown-Spearman prophecy formula, we found a reliability coefficient of .97.

The boys were given the choice blank and careful instructions in regard to using full names, restricting their choices to members of the study population, etc. Again the alphabetized list of the boys in the study was given each boy to aid in spelling and to keep the list of those in the study before him. Most protocols were completely filled out and all were scoreable. The scoring of such sociometric

⁴⁴Gates, A.J., Jersild, H.T., McConnell, T.R., and Challman, R.C., Educational Psychology, New York: Macmillan Co., 1949, p. 544.

⁴⁵Jennings, op. cit., pp. 532-538.

techniques has varied from simple count of times a child is chosen in first, second, or third choice position through arbitrary weighting of choices, and more elaborate systems based upon the probability of being chosen. For our purposes we followed Bronfenbrenner⁴⁶ who states that when the number of criteria and choices remain constant with as many as three criteria and five choices allotted, a count of total number of choices for each child will provide a reliable index of social status. He also states that weighting is an arbitrary matter as one cannot be sure of the difference in first, second, and third choices to the point of being able to say that a first choice is worth five points, a second three points, and a third two points or any other similar system. This may be particularly true of our population as past experience with boys living in such intimate groups seems to indicate that any given boy may frequently have difficulty choosing between one or two close companions. Therefore, it was decided to give a credit of plus 1 for every choice and a credit of minus 1 for every rejection securing as a total score the algebraic sum of these credits. The derived scores, when a constant was added to eliminate negative values, gave the appearance of normal distribution.

⁴⁶Bronfenbrenner, op. cit.

Group IV - Adjustment Scores
Derived from Projective Techniques

The Group Rorschach developed by Harrower-Erickson⁴⁷ was the basic technique used to secure Rorschach protocols for each of the sixty-six boys in the study. The test itself consisted of the ten original Rorschach ink blots on standard 35 mm. koda-slides. Responses were written in a semi-dark room in the Group Rorschach booklet published by the Psychological Corporation (included in the Appendix)*. Since the protocols were scored by using Munroe's⁴⁸ check list method which is explained in Appendix B of her monograph, some attention to both reliability and validity of the method should be reported. She reports that by using the protocols of eleven students and eleven competent Rorschach examiners an average rank-order correlation between examiners of plus .65 was secured. She further states that this indicates substantial agreement between examiners. In this study to test further the reliability of the measure, the writer (after the lapse of over a year) rescored one out of every three of the original records, which the writer's secretary had copied with no scoring marks on unused test blanks. Rank-

⁴⁷Harrower-Erikson, op. cit.

⁴⁸Munroe, op. cit.

*Appendix p. 301.

order correlation between the two scorings was .786. In making evaluative studies of her technique Munroe used Sarah Lawrence College students. She used such external criteria as referral to a psychiatrist, cases requiring much faculty consultation, and a committee rating of teacher reports. Three-hundred and forty-eight students rated for four degrees of adjustment by use of the check list were compared against these three criteria and a corrected coefficient of contingency of .55 was reported. Munroe⁴⁹ insists that, "this indicated a rather strong positive relationship between maladjustment as measured by the Rorschach and as established by external criteria."

The Group Rorschach was administered at the fourth session of the group testing. None of the participating boys had ever been presented with the Rorschach Test previously. The 35 mm. slides were projected on a classroom screen in semi-darkness as the window blinds of the testing room were not completely opaque. Directions of administration as presented by Harrower-Erikson⁵⁰ were strictly followed. Directions in securing the marking of the responses and the inquiry were likewise followed carefully. A local camera shop prepared a demonstration slide which was used to explain the directions prior to the inquiry. It took approximately one and one-half hours to complete the securing of

⁴⁹Ibid., p. 39.

⁵⁰Harrower-Erikson, op. cit., pp. 30-45.

protocols. All were scoreable and cooperation level was high. In fact the group presentation seemed to increase the number of responses (this is based upon the comparison of twelve later protocols on these same boys where individual administration of the Rorschach was used. The writer had had formal instruction in Beck's⁵¹ method of scoring Rorschachs under J.B. Rotter at The Ohio State University. Prior to this scoring the Klopfer and Kelly⁵² method was studied carefully. In addition, twenty-five individual Rorschachs given to students not in the study, were scored according to Klopfer and Kelly and compared with published protocols. After scoring by the method of Klopfer and Kelly, Munroe's⁵³ check list was used to secure a quantitative score.* Scoring and applying the check list required from thirty to forty-five minutes for each protocol. Distribution of resulting scores appeared to be normal. Each obtained score was subtracted from a constant so that higher scores would mean better adjustment. This facilitated comparison with the other measures.

The second index of adjustment was derived from the use

⁵¹Beck, Samuel J., Rorschach's Test I Basic Processes. New York: Grune and Stratton, 1944, VII + 223.

⁵²Klopfer, B., and Kelley, D., The Rorschach Technique, Younkers, New York: World Book Co., 1942, VIII + 436 pp.

⁵³Munroe, op. cit., pp. 79-101.

*Appendix p. 301.

of the Rotter Incomplete Sentence Blank, Adolescent Form (included in the appendix p. 302). This test in its present form consists of forty beginnings of sentences which are to be completed by the respondents. According to Rhode⁵⁴ the earliest published incomplete sentence test was that of Payne in 1928. She reports forms of this technique used by Fendler, Lorge and Thorndike, and Sanford. The present test is an outgrowth of Rotter and Willerman's studies⁵⁵ during World War II in using the incomplete sentence test to evaluate the psychological fitness of convalescent soldiers to return to duty. This technique was further explored by Rafferty⁵⁶ with college men. Rotter and Willerman⁵⁷ report a split half reliability coefficient of .85 and an average inter-scorer correlation coefficient of .89. They also report validation based upon case history information, health and personality inventories, admission diagnosis, tests of mental dysfunctioning and the psychological interview with a triserial r of .61. Rafferty⁵⁸ reports a split half reliability coefficient of .75 and an interscorer reliability coefficient of .91. She also reports validation with the judgment of five judges and found a biser-

⁵⁴Rhode, A.R., "Explorations in Personality by the Sentence Completion Method", J. Appl. Psychol., 1946, 30: 169-181.

⁵⁵Rotter, J.B., and Willerman, B., op. cit.

⁵⁶Rafferty, J.E., op. cit.

⁵⁷Rotter and Willerman, op. cit.

⁵⁸Rafferty, op. cit.

ial r of $.60 \pm .05$ when students were judged as adjusted or maladjusted. The writer and his assistant independently scored the test protocols obtained and found an interscorer reliability coefficient of $.88 \pm .02$.

This test was administered to the entire population during the latter part of the fifth group testing session. Scoring follows the principles set forth in the manual for the test. Briefly, the scoring is based upon a six-point scale ranging from severe conflict signs to favorable positive signs. The responses are compared with example responses reported in the manual ranging from severe conflict responses scored 6, through neutral responses scored 3 to positive responses scored 0. A score may be computed by using the formula
$$\frac{40}{40 \text{ minus omissions}} \times \text{Total Score} = \text{Score}.$$
 The higher the score the greater the degree of maladjustment. The secured score was subtracted from a constant so that high scores would indicate good adjustment and lower scores indicate poor adjustment. The scores were distributed in a normal fashion.

Group V - Systematized Direct Observation

The technique used to secure a quantitative measure by systematized direct observation was a modification of time sampling after Olson⁵⁹ who states:

⁵⁹Olson, op. cit., p. 88.

Time sampling is the observation of each individual in respect to a particular category of activity upon which information is to be obtained during a period of time that is kept constant for each individual observed.

The technique used here was to observe each boy five minutes at a time for ten pre-scheduled five-minute periods. Four of these periods were academic classwork, four were in a work shop or work activity, and two were in a recreational activity. There were three categories of behavior felt to be related to adjustment status observed. These three categories were oral habits, dominative behavior, and solitary behavior.

Oral habits as observed by Olson⁶⁰ were found to be highly related to other forms of nervous movements: hirsutal, nasal, aural, and caputal. He found the existence of oral habits to have a validity coefficient of .77 in terms of total nervous habits. He reports the reliability of two observers to be indicated by a coefficient of .75 on the basis of agreement on seven ten-minute intervals. Using several observers with twenty five-minute observations, he reports reliability coefficients ranging between .68 and .94 with .87 the most representative value. Oral habits were used as a symptomatic expression of maladjustment on the hypoth-

⁶⁰Ibid., p. 30.

esis that they and other nervous habits stem from unresolved tensions. The definition of occurrence of an oral habit was that, if during the five-minute period of observation, a boy sucked his thumb, finger, or object such as a pencil, or if he bit his nails, or if he protruded his tongue between his lips visibly, he was checked for presence of oral habit on the observation sheet. It was possible to receive only one check during the five-minute period as Olsen⁶¹ reports that reliability is much better when such a procedure is followed.

The second category of behavior to be observed during each five-minute period was designated Dominative behavior. This category was developed from the work of Anderson⁶² who states: "It is assumed that high frequencies or increases in domination of other children are undesirable." In his study of socially integrative behavior he used a classification which he breaks down into N-1 (demands, commands, and uses force) and N-2 (attacks of other children.) He reports no reliability figures for observation of such behavior but he does assert that it remains fairly stable over a considerable period of time. For this study we defined this category as the occurrence of any of the following instances of behavior within the five-minute behavior observation period: demands that he be given special consideration - a particular

⁶¹Ibid., p. 21.

⁶²Anderson, Harold H., "Domination and Socially Integrative Behavior," (In) Barker, R.G., Kounin, J.S., and Wright, H.F., Child Behavior and Development. New York: McGraw-Hill, 1943, 459-483.

task or assignment regardless of conflict with the group activity; commands another to do something he is quite able to do for himself - pick up a pencil, get equipment, run an errand, do his assigned task; shoves or pushes another to make way for himself - the use of body contact to secure some objective; verbally attacks the status of some other child - makes disparaging remarks concerning the efforts of another. This category was used on the hypothesis that the better adjusted individual does not need to dominate the situation but is more socially sensitive in his personal contacts with others. It was believed that characteristic display of dominative behavior as defined tends to make for rejection on the part of others rather than acceptance and a cooperative socially integrative state of affairs.

The third category of behavior to be observed in each five-minute period was designated Solitary behavior. It has been hypothesized earlier that behavior which is characterized by optimistic participation in harmony with the group is more adjustive than behavior which is directed toward withdrawal from the group and solitary pursuits when there is ample opportunity for participation in group oriented activity. Since the observations made were in the fields of group activity, a presence of solitary behavior, if characteristic, was hypothesized as indicating maladjustment. We defined this category as the presence of behavior not

attentive to the group - staring out the window when others are absorbed in discussion or participating in assigned tasks; engaging in doodling or drawing when others are engaged in group activity, closing eyes and evidencing regular breathing of sleep when group is engaged in an activity; pursuit of individual activity when others are working as a team - standing on side lines when he is supposed to be participating in a game, evidencing no interest in outcome of game even though he is a member of the team - such as, throwing stones idly with back to activity. The occurrence of any one of these behavior items during any five-minute period rated one check on the observation sheet opposite solitary behavior.

Observations were recorded on individual sheets designed to cover one five-minute period. There were ten such sheets for each boy. Observations were pre-scheduled to cover a six-week period. No boy was observed in consecutive five-minute periods in the same scheduled hour of an activity. Each period was so scheduled that a boy was not observed always at the beginning of the period or at the end of the period but in five-minute periods that were scattered over the hour period itself. The observations were made by either the writer or his assistant from a side-front position in the room, playing field, shop, or other area in which the activity was being conducted, in such a manner that no boy was aware of his direct observation. Timing was done by a stop watch.

In order to secure some indication of reliability of the observers, both observers noted the same boys during seventy identical five-minute periods. It was found that there were 210 chances for agreement and that actual agreement was secured 86% of the time. Scores were derived for each boy through transferring the data from the observation sheets to a master sheet for each boy. Scores could range from 0 to 30 but they actually ranged from 1 to 18, while normally distributed a very narrow interquartile range, i.e., 3 was found. This technique was found to involve a complicated scheduling process, take a tremendous amount of time, and produce results which do not seem to differentiate well between members of the group.

Variables with an Unknown Effect. After securing the various comparative measures of adjustment, it was necessary to calculate chronological age, mental age and length of residence since it was decided that these variables might have some influence on the measures of adjustment secured. Chronological age was computed for each of the sixty-six boys in the study by subtracting date of birth from June 1, 1950, the anchoring date of this study. This measure was expressed in months. Mental age was secured by entering the Binet⁶³ tables with the latest established I.Q. on either Form L or Form M of the 1937 Stanford Revision of the Binet

⁶³Terman, L.M. and Merrill, Maud A. Measuring Intelligence. New York: Houghton-Mifflin Co., 1937, Appendix.

Scale, and the boy's chronological age and reading off the resulting mental age. This procedure introduces some error as all of the boys were not subjected to exactly the same testing conditions and it assumes a stable I.Q. over the years. I.Q.'s used were all established within the last three years. However, it was thought to differentiate between varying intellectual potentials for the purposes of this study. Length of residence for each boy was calculated by subtracting the recorded date of his admission to the O.S. & S.O. Home from the anchoring date June 1, 1950. This measure was also expressed in months.

Summary

The representative measures which have commonly been used to establish adjustment criteria, have been outlined in detail. The rationale behind the selection of each of the ten techniques used to establish the sixteen different measures has been presented. It has been demonstrated that these ten techniques meet adequately the pre-determined criteria for their selection. It is admitted that there are many other commonly used measures for assessing adjustment but because of their unsuitability for this age group, the limit of time involved in the study, or other similar reasons, they could not be included. It is felt that the measures selected for comparison do represent a wider range

of approaches to this problem than has ever been accomplished heretofore.

The general procedures used in securing, through the described techniques, comparable measures on the population of sixty-six adolescent boys residing at the O.S. & S.O. Home have been shown in detail. Specific directions concerning the group-administered tests can best be secured by referring to specific test manuals which are included in the appendix of this study whenever practicable. Scoring of protocols was carefully checked by two independent scorers whenever possible. With such instruments as the Group-Rorschach a careful re-appraisal of each score was made as each protocol was completed. All scores were entered on a master sheet and verified by reading back from the chart and comparing the original protocols by the writer and his assistant. Every effort was made throughout the securing of the various measures to prevent bias by using code numbers instead of names. Scores secured by any technique were not matched with the name of the boy until all scores were established on all of the various techniques.

After the measurements were secured by the various techniques outlined in this chapter, it becomes necessary to make certain statistical comparisons between the measures. The results secured through the application of correlational procedures to the data and the conclusions reached in regard to agreement between various measures purported to assess adjustment, becomes the next matter for consideration.

CHAPTER V

THE PRESENTATION AND DISCUSSION OF RELATIONSHIP AMONG ADJUSTMENT INDICES

Introduction

It is the purpose of this chapter to express the relationships among the scores made by the population group on the various selected measures of adjustment by correlational methods. An analysis of the intercorrelations among these indices, many of which have been used in various studies as independent criteria of adjustment, should help to answer the major hypothesis of this study. Further, such an inquiry into these interrelationships may help to determine the present status of our attempts to measure the global concept referred to as adjustment.

At this point it seems necessary to re-state the major hypotheses: If present measures purporting to assess adjustment status are measuring the same concept or related aspects of that concept, they should be positive in their relationship and differ significantly from zero. As an addenda to this major hypothesis it is necessary to state: If there exists positive correlation differing significantly from zero between measures purporting to measure adjustment, such relationship lends support for the existence of such a global concept.

In addition to this major hypothesis it was also proposed to examine certain other related hypotheses: (a) Certain extraneous variables-chronological age, mental age, and months of residence in the O. S. & S. O. Home - are not positively and significantly related to measures of adjustment. (b) Wherever similar techniques are used to assess adjustment, the relationship among similar techniques will be greater than the relationship between different techniques. (c) In the application of representative techniques for assessing adjustment, certain techniques or combinations of techniques may demonstrate unique advantages or disadvantages.

In the pages to follow, it is proposed to review briefly the methods used to gather the data, to summarize the characteristics of the original data, and to examine the intercorrelations of adjustment measures with the extraneous measurements. The intercorrelations among the various adjustment indices will be examined for significance, and the logic of existing correlations will be developed. A discussion of various points brought out by the data themselves will follow. Recommendations and conclusions based on an evaluation of the data will conclude the chapter.

Presentation of the Data

In Chapter IV a detailed discussion was devoted to the gathering of the data. Briefly reviewed, scores were secured from sixty-six adolescent male residents of the O. S. & S. O. Home during a six-month period in the spring and summer of 1950 by representative techniques of assessing adjustment. Sixteen

scores purporting to appraise some aspect or aspects of adjustment were secured on each boy in the population. These sixteen scores were obtained by means of five groups of techniques representing questionnaires and inventories, adult ratings, peer ratings or sociometric techniques, projective techniques, and direct observation. Representative measures were selected within each technique so as to insure the most complete intercorrelational analysis yet attempted through including as many differing types of adjustment indices as possible. Original protocols were identifiable only through the use of code numbers to prevent any conscious or unconscious carry-over between assessments. Scoring was done independently by the writer and his assistant as a check where ever the technique so lent itself. No scoring was undertaken until all assessments had been accomplished.

When all tests had been scored and all ratings tallied, a chart was prepared including code numbers and boys' names with a column devoted to each measurement variable. Raw scores were entered in appropriate columns. It was decided to utilize raw score data rather than to attempt to record some measures in percentiles or standard scores which were provided by test constructors in instances of standardized techniques. In order to facilitate handling of scores, it was necessary to transmute the scores in six arrays by adding or subtracting constants so that all arrays would be arranged in such a manner that high scores indicated relatively high adjustment level and low scores indicated relatively poor adjustment level. The means of both

the transmuted scores and the original scores are set forth in Table 5, page 132.

These resulting scores on the various adjustment indices were recorded on another chart along with the scores derived from chronological age, mental age, and months of residence in the O. S. & S. O. Home. These resulting nineteen arrays were then transmuted to interval scores ranging through one to fifteen, preparatory to securing the one-hundred and seventy-one correlation coefficients necessary to determine the various interrelationships. These transmuted scores were punched into I. B. M. cards and the punched cards, one for each of the sixty-six boys and were verified. I. B. M. equipment was used in accordance with Dr. Toops'¹ suggestions. The I. B. M. cards were sorted twenty times, once for each variable and once for the sum check column. After sorting, the cards were run through an I. B. M. machine wired so that simultaneous sums for the twenty variables could be secured.² After each sort on each variable, the cards were run through and sums were obtained and checked on each of the twenty variables. These sums, representing cumulative scores of each variable with

¹Toops, Herbert D. "Some Possibilities of Statistical Analysis Rendered Possible by Recent Applications of Punched Card and Sorting Equipment." Ohio College Association Bulletin No. 131. Columbus, Ohio. Ohio State University pp. 2508-2514.

²Dwyer, Paul S. "Simultaneous Computation of Correlation Coefficients with Missing Variates" Proceedings of the Research Forum, Endicott, New York. Aug. 26-30, 1946. New York: International Business Machines Corporation, pp. 20-27.

itself and the cross product sums with every other variable, were then utilized in solving Toops'³ L formulas to secure the mean and sigma of the variable as well as all of the inter-correlations. All of these solutions were checked independently in order to eliminate errors arising from this source.

Characteristics of Data. Prior to presenting the resulting intercorrelations, it seems well to review for the reader the characteristics of the data which were discussed somewhat at length in Chapter IV. Table 5 on page 132 is presented, which provides at a glance much of this previously discussed material along with means and standard deviations of the score arrays secured in this study. This table, reading from left to right, shows by vertical column headings the five major types or techniques, the types, i.e., California Test of Personality, the indices of adjustment or measured variables used, the mean of each index, the standard deviation of each index, its reported or determined reliability, and the percentile level of mean scores when available.

An examination of Table 5 indicates the following facts which need to be kept in mind when interpreting the relationships among the variables.

(1) The mean score established on the California Test of Personality both in the area of Self-Adjustment and Social Adjustment indicates that the average individual in this group

³Toops, op. cit., p. 2514.

expressed more signs of maladjustment than the median individual expressed in the group upon which the test was standardized. When the median scores of the present population are examined we find the median score in Self Adjustment to be at the 20th percentile level. The median score of our group in Social Adjustment is at the 30th percentile. The mean score of Self Adjustment is at the 20th percentile level and the mean score on the Social Adjustment is at the 25th percentile level.

(2) The reported S. D. on Self Adjustment is 11.5 and reported S. D. on Social Adjustment is 10.0. A comparison of these figures with our secured S. D. of 11.32 on Self Adjustment and 11.91 on Social Adjustment would indicate that our group, while scoring lower on the test as a whole, has a range of scores comparable to the range of the group upon which the test was standardized.

(3) The percentile levels of the mean scores of our group on the six factors of the Heston Personal Adjustment Inventory are somewhat lower than median score percentiles reported by Heston. However, when you consider that his percentiles were derived from the scores of 217 high school seniors while the present group was of an average age of high school sophomores, our somewhat lower levels may be partially explained on the basis of immaturity in the reaction to some of the material included. Heston reports no standard deviations in his manual but with the exception of the 4.52 S. D. secured on the Analytical Thinking Factor, the reported S. D.'s appear typical and are large enough to give a wide range of scores in a correlational study.

TABLE 5

Characteristics of Original Data

Types	Sub-Types	Measured Adjustment Indices	Mean	S.D.	Reliability	Percentile***
Questionnaires and Inventories	California	Self Adjust.	57.0	11.32	(.867 to)	20
	Test of Pers.	Soc. Adjust.	66.24	11.91	(.908)	25
		Anal. Think.	20.80	4.52	.855	38
	Heston	Confidence	24.86	6.97	.835	42
	Personal	Sociability	22.09	6.77	.910	40
	Adjustment	Pers. Rel.	21.59	6.12	.800	38
	Inventory	Emo. Stabil.	26.36	7.61	.862	41
		Home Satis.	37.23	7.61	.867	48
Ratings by Adult Judges	Rating Aver.	T. & S.			**	
	2 T's & 1 S.	Rating	97.53	33.07	.582	--
	Haggerty-Olson-Wickman	Average Deans' Rating	<u>47.14</u> *82.6	18.54	**.82	73
	Behav. Sch.	Rating				
	Rat. by Psych.	Psych. Rating	93.83	16.15	**.758	--
Ratings by Peers	Sociometric Measures	Guess Who	<u>98.96</u> *.83	25.80	-.49-.90	--
					** .95	
		Comp. Choice	<u>99.95</u> *.05	27.59	-.65-.96 ** .97	--
Adj. Scores Derived from Proj. Tech.	Group Rorschach	Munroe Ck. List	<u>19.44</u> *15.6	4.81	**.786	--
	Rotter Inc. Sentence	H.S. Form Inc. Sent.	<u>50.00</u> *125.5	16.27	**.877	--
	Behavior Count	Time Sample	<u>23.62</u> * 6.5	2.85	**** 86%	
Variables with Unknown Effect	Mos. of Age	C. A. -	192.59	13.37	--	--
	Rev. Stan. Bin.	M. A.	173.74	21.20	--	--
	Mos. in Res.	Residence	78.17	38.03	--	--

- * Means of raw scores prior to converting so that high scores mean relatively high adjustment. Upper figure shows mean of scores after conversion.
- ** Reliability determined from data of the study
- *** Percentile equivalents of the mean scores found in this study are given when available.
- **** Reliability indicated by percent of agreement between two judges on sampling of 70 observations with possibility of 210 chances for agreement.

(4) Any interpretation of correlational data with the average of two teachers' and one supervisor's rating should be done cautiously in view of the low reliability coefficient found when using this index. This rating instrument did distribute the population normally on an adjustment continuum and the S. D. of 33.073 is quite large.

(5) The data secured by using the average rating on the Haggerty-Olson-Wickman Rating Schedule B was compared with the normative data contained in the manual. The manual reports a mean of 72.4 on a population of 1473 boys without stating age characteristics. Our obtained mean of 82.6 which is at the reported 73rd percentile level would suggest that our group indicated more evidence of maladjustment than the normative group. The obtained S. D. of 18.53 is in almost exact agreement with the reported S. D. of 18.4.

(6) The psychologist's overall rating using the same 18 mm scale as used by teachers and supervisors, has a comparable mean (93.83 vs. 97.53) but has a smaller S. D. (16.15 vs. 33.07). The reliability of his rating is higher, however (.76 vs. .58). This would seem to indicate a more conservative tendency on his part to rate these boys as less widely different in their adjustive status.

(7) In examining the means and standard deviations of the Sociometric measures, it is readily seen that both measures distribute the group similarly, having almost identical means and standard deviations. It is apparent that as set up in this study, they are closely related techniques securing a similar

distribution of peer relationship. The wide range of scores obtained should permit any relationship to other tests to show up. The obtained reliabilities of .95 for the "Guess Who" and .97 for the "Companionship Choice" are as high as those reported in similar studies.

(8) In comparing our results using the Rorschach Check List with those of Munroe (who developed the instrument while working with girls of college age), we find our mean of 15.6 checks falls in her classification of severe maladjustment. It is quite possible that the population she worked with is so different in age, cultural, educational, and intellectual status that the statements made in regard to the number of checks reflecting maladjustment are not applicable in our very different population. The S. D. of 4.8 indicates a fair distribution when total range possible is considered (i.e. a range of 1 to 30). Munroe does not report the S. D. found in her manual.

(9) Rotter reports in his manual the normative data secured on 214 male college freshmen. He reports a mean of 127.5 with an S. D. of 14.2. Our obtained mean of 125.5 with an S. D. of 16.268 is certainly a comparable distribution despite the fact that we are using a much younger age group, of probably considerably lower intelligence, and the High School Form of the test.

(10) In the case of the Time Sample technique the obtained S. D. of 2.85 indicates the lack of discriminatory value of this method as applied in this study. Any conclusions drawn in regard to intercorrelation of indices obtained from this method with indices secured from other techniques, must be

made with cautious reservation.

(11) Chapter III contains a detailed description of the variables with unknown effect so that mention need only be made that the mean age of the population was sixteen years with a S. D. of approximately one year and two months. The mean mental age was fourteen years and six months with a S. D. of approximately one year and nine months. The mean years of residence was six years and six months with a S. D. of approximately three years and two months.

In evaluating the data presented, it is well to maintain before us certain salient facts brought out in Table 5. (a) We need to consider that on several measures the population used indicated more maladjustment than the normative populations. This is particularly true on the California Test of Personality and the Rorschach. (b) However, all measurements were distributed normally and in most cases showed a wide range of scores. Relationships between these tests, if present, should show up. (c) Because of low reliability and limited range of scores, however, lower correlations will have to be expected in the case of "T & S" ratings (average rating of 2 teachers and 1 supervisor) and the Time Sample rating. The results on these particular tests seem comparable to those obtained by others and should give evidence of the value of these methods.

Effects of Extraneous Variables. In setting up the study there appeared to be three variables whose effect upon indices of adjustment in the present population were not known. These extraneous variables were measured and correlated with each of

TABLE 6

CORRELATION OF ADJUSTMENT INDICES WITH
VARIABLES OF UNKNOWN EFFECT

Measured Adjustment Indices	17	18	19
	C. A.	M. A.	Residence
1. Self Adjustment	-.036	-.019	.101
2. Social Adjustment	.039	-.023	.080
3. Anal. Thinking	.105	-.001	.076
4. Confidence	-.058	.070	.115
5. Sociability	.136	.159	.159
6. Pers. Relations	.018	.118	.047
7. Emotional Stability	-.025	.006	.068
8. Home Satisfaction	-.120	.052	-.116
9. Average Teacher and Supervisor Rating	.197	.222	.215
10. Deans' Aver. Rating	.051	*.263	.138
11. Psych. Rating	-.003	.103	-.006
12. Guess Who	.168	.206	*.261
13. Companion Choice	.061	.238	.177
14. Rorschach	-.132	.194	.058
15. Incomplete Sentence	-.078	-.113	-.121
16. Time Sample	#.472	.119	*.279
17. C.A.	—	.025	#.449
18. M.A.	.025	—	.182

* r = .243, .05 level of significance

r = .316, .01 level of significance

the adjustment indices. Table 6 page 136 presents the results of those findings. Reading left to right in Table 6 we note that of the 48 possible correlations 14 are negative and 34 are positive. Of these only one is significant at the 01 percent level while three others are significant at the 05 percent level.⁴ This is little more than could be expected by chance, but each of these significant relationships is examined in the following paragraphs.

(1) The average rating secured on the Haggerty-Olson-Wickman Behavior Schedule B, made by the two men in the Dean's office, and the mental age of the population, established through the use of either Form L or M of the Revised Stanford-Binet Intelligence Scale, when correlated resulted in a correlation coefficient of .263. This is a positive relationship and is significant at the .05 percent level. Schedule B of the Haggerty-Olson-Wickman Scale contains four divisions or areas of adjustment* within which specific ratings or judgments are made. Division I, containing seven of the thirty-five possible judgments on the total scale, is devoted exclusively to judgments in regard to what we usually think of as intelligence. Number 1 in this division, for example, asks the rater, "How intelligent is he?" and provides five choices, (a) Feeble-minded, (b) Dull, (c) Equal of average child on the street,

⁴Fisher, R. H. Statistical Methods for Research Workers, New York: Hafner Publishing Co., 1950 p. 209.

(All references to significance of correlation coefficients in the pages to follow are drawn from Fisher's Table V. A.)

*See appendix, p. 294.

(d) Bright, (e) Brilliant. It seems very reasonable then that any rating secured on the Haggerty-Olson-Wickman Rating Scale should, if used by competent judges, be positively and significantly related to measures of intelligence. Such a positive and significant relationship is indirectly of value in pointing up the validity of the judgments made.

(2) The second significant relationship found was between the array of scores on the "Guess Who" test and the months of residence in the institution. The correlation coefficient between these two measures was .261, which is positive and significant at the 05 percent level. There seems to be possible explanations of this occurrence in that boys, who had been in longer residence -- there were 35 boys out of the 66 who had lived in the institution for six years or more -- had to be able to make relatively better adjustments to their peers in order to have remained in the institution. The severely socially maladjusted boy would not be found in this group of older residents, as by institutional policy he would have either been aided in making more adequate social adjustment or placed in an environment more in keeping with his needs. Since the "Guess Who"* is based upon descriptions of traits shown to be characteristic of adolescents, approved and disapproved by adolescents, we would expect the boy with more years of living in the institution to reflect more of those approved traits regardless of his chronological age. We might say that the data

*See appendix, p. 297.

suggests that there is a tendency for long periods of group living to have some relationship to the adopting of characteristics acceptable to one's adolescent peers if the individual can respond to the pressures of his environment.

(3) There are two significant relationships found in connection with the data secured from the Modified Time Sampling technique. It was found that the array secured from direct observation of behavior through time sampling was related to chronological age with a resulting correlation coefficient of .472. This is significant at the .01 percent level. This relationship must be considered with reservations as the Time Sampling technique was not felt to be adequately discriminative in placing members on an adjustive-maladjustive continuum. There may be some reason for this relationship when we consider that the characteristics rated seem to be reactions more typical of the younger boy. Empirically, it seems that the older boy under pressures of the group has learned to be more covert in his reactions that are readily observable in group situations. We would be led to expect from experience that the evidences of maladjustment in the older boy within the institution are not as readily apparent in overt behavior terms as in the younger boy who is in the process of developing a more complex reaction system.

There was also found a relationship between the direct observation scores and the months in residence. A coefficient of correlation of .279 was determined, which is significant at the .05 percent level. Again the time sample data must be

regarded with reservations but here again we may be dealing with a tendency toward selective elimination. In other words, with years of living in the group situation, those with the more obviously overt reactions of the maladjusted have either been exposed to remedial measures within the institution or have been removed to a different environment.

(4) The only other relationship in Table 6 requiring comment is that found between two of the extraneous variables, chronological age and months in residence. These relationships between extraneous variables are included for convenience of comparison below the double line at the bottom of Table 6. The correlation coefficient existing between these two variables within the designated population was .449, which is significant at the 01 percent level. This is a relationship we might expect as in general the older boy had had an opportunity to establish more years of residence in the institution, although this state of affairs was not universally true with this group as some of the younger boys in our population had resided for a longer period of time in the institution than some of the older participants in this study. However, the general conditions prevailing would adequately explain this correlation.

To recapitulate and point out the facts highlighted by Table 6 we can state that the majority of the relationships expressed are positive but neither significant at the .05 nor the .01 level of significance. In the main, our indices of adjustment were not related to any one of the three extraneous variables. Out of sixteen indices only three were found to

enter into significant relationships with these variables. The rating secured from the Haggerty-Olson-Wickman could be expected by its nature to show relationship to intelligence. The "Guess Who", in its relationship to months in residence, seems to indicate a trend toward establishment of more admired peer characteristics with longer residence. The Time Sample seems to be related to both chronological age and to months in residence, but this relationship cannot be taken too seriously because of the discriminatory value of the instrument. In brief, then, our measures of adjustment are not significantly affected by these extraneous factors.

Relation Between Various Measures of Adjustment. Table 7, presented on page 142, presents the 120 coefficients of correlation possible when each of the indices of adjustment are correlated with each other. These are presented for convenience in an intercorrelation table with the coefficients of correlation between similar techniques boxed in red. Those coefficients meeting either the 05 or 01 percent level of significance are starred.

At first glance it is apparent that there is a general lowness of relationship between the various indices. However, most of these relationships are positive and a considerable number are significant when the 05 percent level is used. It is also quite apparent that there are a number of fairly high relationships between techniques belonging to the same general class.

If the median correlation coefficient of .228 is considered,

TABLE 7
INTERCORRELATIONS OF ADJUSTMENT INDICES

		I							II			III	IV		V	
		2. Social Adjustment	3. Anal. Thinking	4. Confidence	5. Sociability	6. Personal Relations	7. Emotional Stability	8. Home Satisfaction	9. Teacher and Sup. Rating	10. Deans' Rating	11. Psych. Rating	12. Guess Who	13. Companion Choice	14. Rorschach	15. Incomplete Sentences	16. Time Sample
Self Adj.	1	*.663	.237	*.533	.202	*.615	*.483	*.325	*.712	*.262	*.400	*.501	*.320	*.256	*.321	*.277
Soc. Adj.	2		.106	*.349	.145	*.458	*.333	*.376	*.424	*.268	*.472	*.284	*.271	*.345	*.320	.123
Anal. Th'k.	3			*.333	*.308	.174	*.303	.134	.039	.132	.071	.197	.069	.107	.038	.092
Confidence	4				*.497	*.755	*.808	*.329	.033	.165	.214	*.259	.221	.142	.148	.008
Sociability	5					*.285	*.318	.015	.087	.060	.042	*.333	.044	.106	.080	.029
Pers. Rel.	6						*.788	*.381	.168	*.245	*.310	*.269	*.365	.177	.214	.124
Emot. Stab.	7							*.428	.007	.070	.164	.221	.235	.183	.093	.068
Home Satis.	8								.214	.019	.197	.047	.126	.200	.033	.101
Teacher & Sup. Rating	9									*.545	*.490	*.531	*.603	*.289	.099	*.455
Deans' Rat.	10										*.580	*.369	*.630	.185	.096	.165
Psych. Rat.	11											*.301	*.488	.112	*.363	.191
Guess Who	12												*.625	*.253	.132	*.291
Comp. Choice	13													*.317	.105	.215
Rorschach	14														.091	.086
Inc. Sent.	15															.097

* r = .243, .05 level of significance

r = .316, .01 level of significance

we conclude that there is a very low positive intercorrelation among measures purporting to assess the same thing. This median correlation is below the 05 percent level of significance. In other words, the median relationship of these arrays of indices of adjustment is too small to indicate much more than chance relationships.

When the sign of these relationships is considered, we find only 11, out of the 120 possible relationships, with a negative sign. None of these are of sufficient magnitude to be significant. In fact 10 out of the 11 are above - .10 in magnitude. Therefore it is reasonable to state that in the main the indices of adjustment used are positively related to each other.

Of the 120 relationships expressed we find 58 of them, or nearly half, of sufficient magnitude to be considered significant at the 05 percent level. Of these 41, or one third of the total, are significant at the 01 percent level. These facts point to the general trend for a number of the indices of adjustment to show low but significant relationship. This appears to lend support to the existence of either common or coexisting factors of adjustment that may be measured by a variety of techniques.

In the paragraphs to follow it is proposed to examine certain of these relationships. It is felt that, in a study of this type, we should confine ourselves to a close examination of those relationships significant at the 01 percent level, with perhaps a more cursory examination of those relationships

significant at the 05 percent level. Here we shall be reasonably sure we are not dealing with a chance relationship and be more secure in our search for the whys of such agreements. It may later be profitable to examine certain absences of relationship as well.

Table 8, presented on page 145, is an intercorrelation table reporting only those relationships significant at the 01 percent level. These are the relationships which we propose to examine at some length in the paragraphs to follow.

If we first consider the significant correlations within certain groups of techniques, it is possible to find certain situations prevailing. In the group of indices established by questionnaires and inventories, we found it possible to establish eight indices through the use of only two published tests. It was possible, therefore, to find twenty-eight significant relationships among these indices, but we found 18 significant relationships within the group. On the other hand there were only 11 instances of significant relationship with the other 8 indices out of 56 possible correlations. In other words, most of the relationships within the group are significant even though the one instrument used, The Heston Personal Adjustment Inventory, was made up of six factors derived through factor analysis.

In the group encompassing ratings by adults, we had three indices and could expect three significant relationships. This is precisely what was found. We also note that there are 11 instances of significant relationship between these three ratings

TABLE 8

INTERCORRELATIONS OF ADJUSTMENT INDICES
SIGNIFICANT AT THE .01% LEVEL

		I							II			III		IV		V
		2. Social Adjustment	3. Anal. Thinking	4. Confidence	5. Sociability	6. Personal Relations	7. Emotional Stability	8. Home Satisfaction	9. Teacher and Super Rating	10. Deans' Rating	11. Psych. Rating	12. Guess Who	13. Companion Choice	14. Rorschach	15. Incomplete Sentences	16. Time Sample
Self Adj.	1	.663	--	.533	--	.615	.483	.325	.712	--	.400	.501	.320	--	.321	--
Social Adj.	2		--	.349	--	.458	.333	.376	.424	--	.472	--	--	.345	.320	--
Anal. Th'k.	3			.333	--	--	--	--	--	--	--	--	--	--	--	--
I Confidence	4				.497	.755	.808	.329	--	--	--	--	--	--	--	--
Sociability	5					--	.318	--	--	--	--	.333	--	--	--	--
Pers. Rel.	6						.788	.381	--	--	--	--	.365	--	--	--
Emot. Stab.	7							.428	--	--	--	--	--	--	--	--
Home Satis.	8								--	--	--	--	--	--	--	--
T - S Rat.	9									.545	.490	.531	.603	--	--	.455
II Deans' Rat.	10										.580	.369	.630	--	--	--
Psych. Rat.	11											--	.488	--	.363	--
III Guess Who	12												.625	--	--	--
Comp. Choice	13													.317	--	--
IV Rorschach	14														--	--
Inc. Sent.	15															--

and the other 13 indices involving a possible 39 correlations.

In Group III, which was composed of the two sociometric indices, we could expect one significant relationship and that is what occurred. The sociometric indices were significantly related to the other 14 indices in 10 instances (28 possible correlations). This give the highest outside agreement so far met in comparing relationship between types of techniques.

In Group IV, which contained two measures derived from projective techniques, we could expect one significant relationship, but none was found. In fact there were only 5 significant relationships found with these two measures when they were correlated with the other 14 indices (out of 28 correlations).

There was only one technique used in Group V. No comparable measures were used within this technique with which the Time Sample could be compared. It was related to only one of the fifteen other measures at the 01 percent level of significance.

It would appear that in Groups I, II, and III the techniques used to establish the various indices were rather closely related within the groups. With projective techniques chosen there was less relationship. It also seems evident that Group III, the ratings made by sociometric techniques, are not only closely related to one another but also more highly related to the various indices established than in any other single group. This would appear to be a supportive argument in favor of using sociometric techniques when screening for maladjusted individuals in a group situation.

So a first factor seems to be type of measuring instrument or source of judgement. Let us look, however, at other possible factors through a closer inspection of significant correlations.

In the pages to follow (148-176) the intent is to take each index of adjustment and examine those relationships between the specified index and every other index that is significant at the 01 percent level. The occurrence of such relationships as set forth in Table 8 will be examined as to magnitude and for possible causal factors. A discussion of the implications of these findings begins on p. 176.

(1) An index of Self Adjustment was established on the first division of the California Test of Personality by means of the respondents answering 90 yes or no questions in sub-areas of self-reliance, sense of personal worth, sense of personal freedom, feeling of belonging, freedom from withdrawing tendencies, and freedom from nervous symptoms. This index was related significantly at the 01 percent level of confidence to ten of the other fifteen indices of adjustment. With Social Adjustment, the two arrays were related as indicated by a correlation coefficient of .663, which is not only significant but fairly high. The authors report in their manual a correlation of .54 between the two sections of the test which is somewhat lower than the one obtained in this study. This correlation between the rather artificially set forth areas of self and social adjustment is quite consistent with the fact that these two aspects are not, and cannot be, mutually exclusive. When you ask in the self adjustment section, for example Sec. 1 A

(2), "Is it easy for you to introduce or be introduced to people?" and then turn around in the section devoted to Social Adjustment and ask, Sec. 2 B (106), "Do you often introduce people to each other?" you have answers that are likely to be related if there is consistency in the respondent's personality pattern. There are sufficient incidents of sameness in content with, it is true, a different point of departure in the two sections of the test, plus the overlapping of self and social reference in any psychological concept of personality, to adequately account for the relationship found.

When the array of scores, established through the use of the Self Adjustment index, is compared to the six arrays of scores, established on each factor of the Heston Personal Adjustment Inventory, we find no significant relationships with the factors designated as analytical thinking and sociability. Analytical thinking, as described in the manual*, is characteristic of a person who theorizes, plans for himself, is persistent in planning and solving problems. While this is an important characteristic for those of higher level intelligence, we question its having a great deal to do with the adjustment of our population, which suggestion will be further explored later. Sociability is characterized by an extrovertive personality, or one who takes the lead in social participation, according to the manual, and should according to expectations have been related to self-adjustment. But when one closely examines the questions in this area they are found to demand either a choice between

*Appendix p.291 (p. 15 of manual)

leadership and little participation or to mirror feelings of shyness and uncomfortableness in social situations. In an institution, or in any closely regulated group situation, it has been observed that there is a tendency to gravitate toward the norm of the group. To be exceptionally outstanding in any institutional activity results in a certain amount of group disapproval, which may explain boys preferring to show a preference for moderate participation in social activity. The test questions in this area seem better adapted to the more mature student as the developmental age of our population group - that of early and midadolescence - is usually considered as fraught with indecisions and considerable insecurity in tentative social attempts.

The Self Adjustment index was related to the factor of Confidence as indicated by a correlation coefficient of .533. The manual describes this factor as typifying persons who feel sure of the value of their own judgments, who enjoy approval of their associates, who are optimistic, and who have a satisfactory concept of their own physique and appearance. It is readily seen that this factor as described resembles many of the concepts incorporated in the questions on the Self Adjustment section of the California Test of Personality. A careful examination of both instruments reveals enough similarity to account for this relationship.

The scores on Self Adjustment were related rather highly to the score on the factor designated by Heston as Personal Relations. A correlation coefficient of .615 characterized

this relationship. Here again we find considerable duplication in question content between the two instruments. Personal Relations is a factor which, according to the manual, reflects two basic attitudes, (1) a feeling of mutual trust and congeniality and (2) a freedom of annoyance and irritability in conjunction with reaction to other persons' behaviors. It can readily be seen that such a factor cuts across many of the inquiries in regard to self adjustment and, as a result, a rather high relationship was found.

A somewhat lower but nevertheless positive and significant correlation coefficient of .483 was found between Self Adjustment and the factor designated Emotional Stability. The manual describes this factor as one indicating a reality concept of life, a moderately high frustration tolerance, and a uniformness of emotional reaction. Several of the questions in this area are similar to the questions in the sub-divisions regarding freedom from withdrawal tendencies and freedom from nervous symptoms on the Self Adjustment section of the California Test of Personality. There is, perhaps, enough similarity of context in these questions to account for some of the relationship found.

Finally, in dealing with the factors on the Heston Personal Adjustment Inventory, there is a positive, low but still significant, correlation coefficient of .325 found between the factor denoted Home Satisfaction and the index of Self Adjustment under consideration. This factor is described as an awareness of home responsibilities, an awareness of healthy emotional

relationships, and feelings of mutual understanding and respect. This relationship is rather difficult to explain when one considers the lack of typical home experiences enjoyed by the members of the population under study. It is further complicated by a confusion on the part of the boys responding to the questions. They may have answered the questions from an unrealistic standpoint as many are known to have formed a protective halo around their concepts of relations to their own parents and to belittle the qualities of their relationships with parent surrogates. Others in this group were known to have accepted their obvious rejection by their own families and set about to establish satisfactory relationships with parent surrogates. Others were known to have established few clear cut attitudes or concepts in the family area. Perhaps, as an adjustment pattern, some of those who expressed more adequate feelings of self adjustment also had formulated either real or fantasied concepts in regard to home relations that at least partially accounted for the relationship found. It would seem that there is a tendency for those who report themselves at a higher level of self adjustment to also have more positive feelings of home satisfaction whether they exist on a real or fantasied level.

There was a rather high relationship reflected between the report of self adjustment on the California Test of Personality and the average rating secured from two of the subject's teachers and his supervisor. This relationship is indicated by a correlation coefficient of .712. This size correlation is

surprising when it is recalled how unreliable those adult ratings were. The relationship is high enough to suggest that those subjects reporting a more satisfactory condition of affairs in regard to the way they looked at themselves were judged better adjusted by the adults with whom they were in close contact on an overall rating scale. The feeling of self well-being apparently is reflected in sufficient magnitude in daily environmental contact to influence the judgment of the adults in this particular case.

The Self-Adjustment index was not related at the 01 percent level of significance to the average Dean's rating secured from the use of the Haggerty-Olson-Wickman Behavior Rating Schedule B. However, if one refers to Table 7, page 142, it is seen that such relationship is significant at the 05 percent level. This lowered relationship may perhaps be explained by the emphasis of Schedule B on observed overt social behavior rather than any attempt to interpret just how the person feels during his periods of conformance or non-conformance. However, this does not detract from our former statement that a feeling of self-adequacy tends to be mirrored in environmental contacts, as a positive and significant relationship even though low is still found.

With the Psychologist's rating derived from acquaintance, case history, and semi-structured interview, the Self Adjustment index was significantly related. This relationship was indicated by a correlation coefficient of .400. While this is not a high degree of relationship, it does tend to point again toward a

trend in those, who report themselves more satisfied with themselves, to show more of the aspects of that which we term good adjustment and fewer of the exaggerations of psychological mechanisms subsumed under the heading, poor adjustment.

The Self Adjustment index was related significantly to the score established on the "Guess Who" test. The correlation coefficient expressing this relationship was .501. This, too, is a fairly high relationship continuing to bear out the trend that seems to be holding that those reflecting higher self-adjustment on this instrument also reflect more of the traits which make them acceptable to their peers. Here again we find elements of self-adjustment and social acceptance interwoven to the extent that it is at this point impossible to differentiate clearly between the two as we cannot think of the human organism in strict terms of isolation from similar organisms. We can note the relationship and perhaps regard self-concept and its implications for social adjustment as one of the basic facts illuminated by the data of this study.

To a lesser extent, but still significantly related, we find the Self Adjustment index and the score secured from the "Companionship Choice" test. We found a correlation coefficient of .320. We note, when comparing the original data secured from the two sociometric techniques, that the subject exhibiting the most accepted adolescent characteristics is not always the chosen companion. This is a point that merits more careful consideration when these two indices are compared later. It is this point, however, which seems to account partially for the

lower degree of relationship found in this particular instance. The fact that the relationship is positive and significant further supports a trend toward positive feelings of self adjustment to be related to social acceptance.

The Rorschach Check List score was not related to the Self Adjustment index at the 01 percent level of significance. If again reference is made to Table 7, p.142, it can be seen that there is a significant relationship at the 05 percent level and that this relationship is positive. Here again we can say that the relationship, while of a low order, is indicative of a trend for those who report more adequate feelings of self adjustment to reflect such feelings on a projective instrument designed to throw light upon the various inter-personality predilections of the subject. The low relationship found does not negate the trend but rather point to the presence of other factors in what we commonly think of as global adjustment.

The Self Adjustment index was significantly related at the 01 percent level to the index established by means of Rotter's Incomplete Sentence Test. The relationship is expressed by a coefficient of correlation of .321 which, while not of a high order, nevertheless indicates a tendency for the two arrays to be somewhat related. This, too, is in the realm of reasonable explanation when we consider that many of these incomplete sentences refer to the self. Sentences for example that begin like #12,* "I feel _____" provide for the occurrence of a

*See appendix, p. 302.

statement of conflict arising in the realm of self or a statement of adjustment in the realm of self. It is also true that many of these beginnings of sentences could conceivably bring forth irrelevant, flippant, or refused answers. Other sentences, for example #16, "Sports _____" are oriented more exclusively toward group pursuits. It is possible that because there are divergent directions that answers may take, as well as divergent attitudes that the respondent may take, we find low correlation. Again the trend is still evident that those who report themselves better adjusted on the Self Adjustment inquiry of the California Test of Personality tend to reflect that adjustment when other techniques are used to assess adjustment status.

Between the Modified Time Sample index and the Self Adjustment index there was no relationship at the 01 percent level of significance. Again when Table 7 on page 142 is consulted, we find a positive relationship expressed by a correlation coefficient of .277, which is significant at the 05 percent level. This further supports the trend for this self report index to be related to other indices of adjustment even though the Time Sample data must be taken rather lightly. The index of adjustment as established through response to questions in regard to self adjustment contains a thread of relationship to every other index used in this study with the exception of Sociability and Analytical Thinking indices established on the Heston Personal Adjustment Inventory.

(2) The next step will be to look at the significant relationships in Table 8 between the Social Adjustment index and

the other adjustment indices. The Social Adjustment index was related positively and significantly at the 01 percent level to the factors on the Heston Personal Adjustment Inventory designated as Confidence, Personal Relations, Emotional Stability, and Home Satisfaction. This index was not significantly related to those factors designated Analytical Thinking and Sociability. This is a duplication of the pattern of relationships found between Self Adjustment as secured from the California Test of Personality and the same factors on the Heston. Most of the same tentative explanations can be given for these relationships since it is indicated that the distinction made between Self Adjustment and Social Adjustment by the authors of the California Test of Personality appears to be a matter of approach rather than one of content. Since the two indices established on the California Test of Personality are so closely related, we would expect their pattern of relationships with a similar technique to be quite similar.

There is one relationship between Social Adjustment as secured from the California Test of Personality and the factor designated by Heston as Sociability that needs some consideration. Here one would expect between two similar sounding indices, using self report as the technique, to find a fairly high relationship. Such does not exist. When the two instruments are examined you find the California Test of Personality deals with social skills, the presence or absence of anti-social tendencies, feelings of rapport in school, family, and community, and knowledge of standards of social conduct. The Heston Sociability factor on

the other hand deals with the social extrovert - the one who makes friends easily, converses readily and freely, and takes the lead in group activities. In an institutional society, where there is a tendency toward conformance to the group rather than struggle to lead the group, these two instruments bring forth unrelated responses. Whether they would do the same in a society less socialistic in nature is a matter for future testing.

The Social Adjustment index, like the Self Adjustment index, was related significantly to the average teacher and supervisor rating and to the rating made by the psychologist. It was not related significantly at the 01 percent level to the average Dean's rating but when Table 7, page 142, is examined it is found to be related at the 05 percent level and of the same magnitude as that of the Self Adjustment index. With this group then the same pattern of relationship was found. Here again we have the same tentative reasons for explaining these relationships. In general the two indices appear as similar aspects of the same self report. One's feelings in social situations seem to mirror his feelings about himself and appear to be of the same emotional tone. These are then reflected when adult raters view the individual in his milieu.

In considering the subject's own report of his feeling of social adjustment and that relationship with the score established on the sociometric measures - the "Guess Who" and the "Companionship Choice" - one would expect a rather high relation-

ship. Such was not the case as the relationship between each of these measures and the Social Adjustment index were of such magnitude as to be below the 01 percent level of significance. From Table 7, on page 142, we find these relationships to be significant at the 05 percent level. The correlation coefficient between Social Adjustment and the "Guess Who" is .284. The correlation coefficient between Social Adjustment and the "Companionship Choice" is .271. Why do those boys who rate rather well with their peers not report more accurately a feeling of social adjustment logically in keeping with acceptance? It may be that many boys who report adequate social adjustment are really not acceptable to their age mates. The Social Adjustment protocols of the lowest ranking two boys in both the "Guess Who" and the "Companionship Choice Test" were checked. These almost unanimously rejected boys established very low adjustment scores. The Social Adjustment protocols of the two boys ranking high in acceptance on the "Guess Who" and the "Companionship Choice" were also looked at and were found to reflect fairly high feelings of social adjustment. However, the rank and file, those who are not at the extreme positions, seem to be rather unsure of their social status. We found some boys, who rank fairly low in acceptance status, reporting adequate feelings of social adjustment and others, fairly well accepted, reporting very inadequate feelings of social adjustment. It appears that, while there is a trend toward relationship between these two measures, that there is also a discrepancy in many individual cases between reporting feelings of social

adjustment and social acceptance and rejection unless that social acceptance or social rejection is of sufficient magnitude to leave no doubt in the person's mind as to how he stands. This, too, is a question that bears further careful investigation. Such findings are further indications of the presence of peer insight in regard to social acceptance on the part of the majority.

The Social Adjustment index was significantly related at the 01 percent level with both Munroe's Rorschach Check List and Rotter's Incomplete Sentence Test. The correlation coefficient between the Social Adjustment index and the Rorschach index was .345. This relationship, while not high, indicates a trend for those who report themselves better adjusted socially to show less signs identified with maladjustment in their responses to the Rorschach stimuli. With the Rotter Incomplete Sentence array of scores the Social Adjustment index showed a coefficient of correlation of .320. While low in magnitude there is an indication of a tendency for those who report positive social relationships to indicate less conflict on a more indirect form of report. The Social Adjustment index showed no significant relationship to the index secured from direct observation using a Modified Time Sample technique. If the latter had been a more discriminating instrument, the social contacts observed should have established an index that would have reflected inter-personal relationships.

(3) The relationships between the California Test of Personality and the Heston Personal Adjustment Inventory have

been discussed. We now need to deal briefly with the inter-relationships among the various factors making up the Heston Personal Adjustment Inventory. From all evidence present this instrument has been more carefully devised than many of its predecessors in the inventory area. However, its factors are not presented by the author of the test as pure in the sense of being unrelated. In Table 9, on page 160, we have presented the inter-correlations between the factors as we found them on our population and have also, for comparative purposes, included the inter-correlations reported by the author in his manual. It is necessary to take more than a casual glance at these relationships before comparing the various factors with the remaining adjustment indices.

Heston, in his manual, remarks that he found that the degree of relationship between pairs of traits varied rather widely from near zero to magnitudes definitely significant. The same may be said of the present findings as Table 9 shows. In the main our findings, using an adolescent male population, parallel his findings using 50 men and 50 women, who were freshmen at the De Pauw University in 1947.

He reports that traits "C", "P", and "E" formed a significantly related triad. Our present data would indicate the same patterning with a slightly higher magnitude of relationship indicated. Heston states that this state of affairs is both logical and reasonable and that it represents, in numbers of respondents, the co-existence of independently describable

TABLE 9

INTER-TRAIT CORRELATIONS FOR THE
HESTON PERSONAL ADJUSTMENT INVENTORY SCALES*

SCALE	A	C	S	P	E	H
Analytical Thinking	.333 (.011)	.308 (-.076)	.174 (-.169)	.303 (-.183)	(-.134) (.033)	
Confidence		.497 (.438)	.755 (.580)	.808 (.726)	.329 (.312)	
Sociability			.285 (.378)	.318 (.325)	(.015) .262	
Personal Relations				(.788) (.611)	.381 (.393)	
Emotional Stability					.428 (.382)	
Home Satisfaction						

* Top figure in each row indicates the relationship found in the present study. N = 66 adolescent boys. Lower figure, in brackets, in each row indicates the relationship found by using 50 men and 50 women from DePauw University and reported in the test manual.¹

¹See appendix p. 291 (manual p. 32)

traits that are desirable for good adjustment. Then the question is raised as to the purpose of measuring all three traits if they are so highly related. Heston answers by reporting an experiment in which percentile levels on the three traits were compared in 50 randomly picked cases. It was found that in at least half of the cases the difference between scores on the three traits are at least 25 percentile points. He feels that this is sufficient reason to measure all three factors which appears to be logical if one is going to utilize scores on an individual basis as derived from this instrument.

Similar findings to those of Heston were found in regard to the factors "H" and "S". We found them to be positively correlated to "C", "P", and "E", but at a much lower magnitude. Heston's findings and ours differed in that he found "H" and "S" to be significantly related while we found a near zero coefficient of correlation of .015 between the two. This discrepancy may be explained by the rather muddled concepts of home relationship existing in the present population. With a population to whom the common home environment of our culture has not existed for lengthy periods in their life, it would not be unreasonable to expect unusual reactions in this area as we have indicated in previous discussions.

Table 9 also shows that the "A" factor was the least related to other factors and was the most independent in Heston's findings. Present results indicate that within our population it was significantly related to factors "C", "S", and "E". In other words those boys evidencing more intellectual independence

tend to evidence more confidence, report more social extroversion, and to indicate more emotional stability. Perhaps these aspects of good adjustment co-exist to a greater degree in a younger population than in the college freshman group which is as atypical in many respects as that of our own group.

Upon the examination of the factors describing traits of adjustment upon which scores were secured on the Heston Personal Adjustment Inventory, we found consistent inter-relationship. Of the 15 coefficients of correlations secured 12 of them are sufficiently related to be significant at the 05 percent level, while 9 of them are sufficiently related to be significant at the 01 percent level. This situation might be used as an argument for the usefulness of a global concept of adjustment as there does appear to be a consistent trend for these described traits to co-exist in a sufficient number of persons to establish significant relationship.

(4) From Table 8, page 145, the relationships between the Heston factors and other indices of adjustment not discussed thus far may be surveyed. The trait, Analytical Thinking, was found to be unrelated to any other index of adjustment at a significant level outside of the relationships between itself and the other factors of the Heston which have already been discussed. This factor described as intellectual independency does not seem to be related to any other measure of adjustment with which we have worked. Heston reports it as being most closely allied to academic achievement at the college level. Whether it is related to achievement at the Junior and Senior

High School level remains to be tested.

(5) Confidence, the second factor to be surveyed, was likewise found to be unrelated at the 01 percent level to indices established by other than the questionnaire and inventory techniques. At the 05 percent level of significance there was a relationship expressed by the coefficient of correlation of .259 with the "Guess Who" results. This finding is rather surprising when we compare the comparatively high relationship this "C" factor had with expressions of Self Adjustment and the many positive relationships that index was found to have with other indices. Perhaps the lack of assurance shown by many adolescents, which should be reflected by this factor, is recognized by other techniques as a developmental state of affairs and discounted. This would be true of ratings and the projective techniques to a certain extent.

(6) The index of Sociability was found to show only one significant relationship at the 01 percent level outside of the Inventory-Questionnaire technique grouping. It was found to be related significantly to the "Guess Who" index as expressed by the correlation coefficient of .333. This seems to indicate a tendency for those boys who express some degree of social extrovertiveness to exhibit more acceptable traits than those who are inclined to prefer follower positions. However, the possession of social traits of an extrovertive nature does not guarantee that he will be a chosen companion for preferred activities as the $-.044$ coefficient of correlation between

Sociability and "Companionship Choice" points out. Adult raters of all classes, using a variety of techniques, do not take this self report of the existence of social extrovertiveness into consideration in arriving at an adjustment index if our data can be used as any indication as these relationships are of the zero order. Neither is the "S" trait related to either of the indices established through use of projective techniques. It is likewise unrelated to the observed characteristics elicited by the Modified Time Sample technique.

(7) The factor, Personal Relations, was found to be related to only one other index beyond Group I at the 01 percent level of significance. This relationship was found to be expressed by the coefficient of correlation of .365 with the "Companionship Choice Test". This is a logical relationship as this factor is intended to elicit favorable responses from those who have positive trusting feelings toward others and those who are least annoyed by behavior aberrations of others. Those who are least irritated by another's ideosyncrasies tend more often to be selected as chosen companions. This point is highlighted when we consider the relationships between the "Guess Who" index and the "Companionship Choice" where we find that those with admirable characteristics are not always chosen as close companions.

When we look back at Table 7, page 142, we find that this "P" factor does show relationship at the 05 percent level with the Dean's Rating, the Psychologist's Rating, and the "Guess Who". This factor is not related to the Teacher-Supervisor

rating, either of the projective techniques, or the modified time sample of behavior. It appears that this factor is a characteristic of those techniques that seek to draw upon material that relates to individual acceptances by members of social groups more apt to be elicited by the techniques described in Groups I, II, and III than by those techniques described in Groups IV and V.

(8) An examination of the factor, Emotional Stability, reveals that within Group I it is significantly related to all indices except the factor, Analytical Thinking. Outside of Group I this factor is related to none of the other indices. It appears that what is described under this factor "E" - one who reports himself free from tension, free from fears, able to relax, and able to see reality - is either not readily elicited by the other techniques for establishing an index of adjustment or that it is a particular facet of the conception of self that is not readily mirrored in any other manner than by self-report and has little to do with the overt signs of adjustment upon which we usually make a judgment.

(9) Home Satisfaction is another factor of adjustment according to the Heston Personal Adjustment Inventory. We find the "H" trait to be unrelated beyond the inventory-questionnaire group. Here again we may be dealing with those feelings of an individual in regard to himself and his environment that may be a definite part of his self-concept, but which do not seem to be related to the way he makes observable adjustments. This

seems to be true providing our other groups of techniques can be relied upon to make valid assessments of adjustment.

In summarizing an examination of the relationships established through correlating the various factors of the Heston Personal Adjustment Inventory with the other indices of adjustment, we find that there are few relationships that are significant beyond the group of inventories-questionnaires. There is more evidence of positive and significant relationship between the described factors than between any of the other indices. The "C", "P", "E", and "H" factors are positively and significantly related to the indices of Self Adjustment and Social Adjustment established on the California Test of Personality.

(10) We have already discussed the relationships between the indices secured from the inventory-questionnaire group and the index secured by using an average rating from two teachers and a supervisor by means of a rating sheet* encompassing the seven facets of adjustment. Next, we consider this average teacher and supervisor rating which must be considered cautiously because of its low reliability as it relates to the indices of adjustment not yet discussed.

Within its own group - Group II, Ratings by Adult Judges - we find positive and significant relationships to prevail. The "T and S" (average teacher and supervisor rating) was correlated with the average rating made by the two men in the Dean's office using the Haggerty-Olson-Wickman Behavior Schedule B. The

* See Appendix p. 292.

correlation coefficient between these two measures was .545 which is significant at the 01 percent level and of fairly high magnitude. This is an expected state of affairs as both classes of raters might be expected to make their ratings on the basis of acquaintanceship with overt behavior characteristics.

The "T and S" rating, when correlated with the rating made by the psychologist, was expressed by a correlation coefficient of .490, which is also significant at the 01 percent level. Perhaps some of this agreement might be partially explained through the use of the same basic scale of adjustment. Disagreement might be a derivative of less frequent observation on the part of the psychologist, a difference in the manner in which the rating was secured, a different emphasis on overt behavior, or many other similar variations between the classes of raters. The fact that the correlation between the "T and S" and the deans' rating was somewhat higher than the correlation between the "T and S" and the psychologist's rating may be in part due to the similar backgrounds of the two classes of raters. Adult judges, although using different techniques, observing at different times, and with different backgrounds, tend to arrive at ratings of adjustment that are related.

With the sociometric indices, the "T and S" rating appeared to be rather highly related. With the "Guess Who" scores a correlation coefficient of .531 was established which is significant at the 01 percent level. With the "Companionship Choice" a correlation coefficient of .603 was established which is of even higher magnitude. We might conclude that there is

rather a strong tendency for teachers and supervisors to admire the same characteristics in an adolescent that are admired by his peers and make judgments accordingly. Also we might say that those adolescents more often chosen for close companions by their peers are judged by teachers and supervisors to be better adjusted.

The "T and S" rating was not found to be related to either of the indices established by use of projective techniques at the 01 percent level of adjustment. However, the "T and S" rating is found to be related to the Munroe Rorschach Check List at the 05 percent level when Table 7, page 142, is consulted. The "T and S" rating was found to be significantly related at the .01 percent level with the index derived from the Modified Time Sample. Since the reliability of the "T and S" rating is questionable and the discriminatory powers of the Modified Time Sample is questionable, it is doubtful if much confidence can be placed in this relationship. It might be inferred rather cautiously that the behavior noted in small samples of behavior tends to be consistent with the impressions gained by teachers and supervisors as related to assessing adjustment status.

(11) It has already been noted that the average rating secured from the Deans, using the Haggerty-Olson-Wickman Behavior Schedule B, was not significantly related at the 01 percent level to any of the indices established in the inventory questionnaire group. It was also noted that it was related to

the "T and S" rating at the 01 percent level of significance. The Dean's rating was found to be significantly related to the Psychologist's rating with an established coefficient of correlation of .580. This would appear to indicate that ratings established by these two groups of raters, using different rating instruments, still arrive at similar judgments in many cases. However, it also indicates that there are many instances of disagreement which might partially be traced to the emphasis on overt behavior of the Haggerty-Olson-Wickman Behavior Schedule B, the differences in training of the judges, differences in experience with the particular individuals rated in differing environmental circumstances, and other similar variables.

The Dean's rating was found to be significantly related to the indices established through the use of sociometric techniques. A correlation coefficient of .369 was established between the Dean's rating and the "Guess Who" score which is significant at the 01 percent level. Between the Dean's rating and the "Companionship Choice" score there was established a coefficient of correlation of .630 which is not only significant beyond the 01 percent level but of a fairly high magnitude. These relationships would indicate that there is some tendency for those exhibiting characteristics favorable to peers to be rated higher on the Haggerty-Olson-Wickman Behavior Schedule B. There is a decided trend for those who are more acceptable as close companions to be rated better adjusted on this rating

schedule. Perhaps those who are freest from overt behavior problems are more acceptable in social situations. In other words, the more one reacts overtly in anti-social behavior terms the less likely is he to find the satisfaction of close friendships.

This rating, established on the Haggerty-Olson-Wickman Behavior Schedule B was not found to show significant relationship with either of the indices derived from projective measures. Neither was it found to be related to the Modified Time Sample index.

(12) The relationship between the rating made by the Psychologist, using case history, personal knowledge, and a semi-structured interview as a basis for his global rating, and techniques in Group I, and the ratings of other adult raters has been discussed. In comparing this rating with the sociometric techniques it was found that there was a significant relationship at the 01 percent level with the "Companionship Choice" score. The coefficient of correlation was .488. Again it seems that those boys who were more acceptable as close companions evidenced less non-adjustive mechanisms as seen through the eyes of the Psychologist in his contacts with them. While not related at the 01 percent level, the Psychologist's rating and the "Guess Who" scores were related at the 05 percent level. In Table 7, page 142, this relationship is expressed by a coefficient of correlation of .301.

In comparing the relationship between the Psychologist's rating and those indices established by use of the chosen projective techniques, a significant relationship was found between this rating and the score derived from Rotter's Incomplete Sentence Test. The correlation coefficient was .363, which is significant at the 01 percent level. The conflicts expressed through this technique tend also to be seen by the Psychologist in his experiences with these adolescents, although there is no consistent agreement between these indices in individual cases. With the Munroe Rorschach Check List there is no significant relationship with the Psychologist's rating. Neither is there a significant relationship between the rating made by the Psychologist and the index secured through the use of the Modified Time Sampling technique.

In discussing the ratings made by various adults we find that they tend to be significantly related to each other. They also tend to be related significantly to the adjustment indices established through the use of sociometric techniques. There are a few instances of rather high relationships to certain indices derived through the use of questionnaires and inventories. In one instance there was positive relationship to an index established through the use of a projective technique.

(13) The relationships between the indices found in Group III - the Sociometric Techniques - and indices secured in Group I and II have been discussed. It is now necessary to discuss relationships between indices in this group and those of groups not previously discussed.

Within Group III we have two slightly different techniques, the "Guess Who", composed of characterizations found acceptable and non-acceptable by adolescents, and the "Companionship Choice", where members of the population are either chosen or rejected for desirable activities. Between these two indices a relationship indicated by a correlation coefficient of .625 was found. This is significant beyond the 01 percent level and of fairly high magnitude. A large chart, showing each individual's positive and negative ratings on each item of the two instruments, was constructed in order that some general tendencies might be more clearly seen. From this chart it was clear that for many individuals there was a consistency between being nominated as the possessor of an approved or disapproved characteristic and being chosen or rejected as a close companion. However, there were a number of individual discrepancies that at least bear a passing consideration and surprisingly these seem to fit into two classes: (1) The strong athletically inclined extrovert, who takes very positive stands and rules his more passive fellows through sheer physical ability, was most often chosen to possess admired characteristics but was very frequently rejected as a companion in a shared activity. (2) The colorless rather passive boy, who easily follows the suggestions of others or the good fellow who is always willing to go along with a more positive individual's direction, was seldom high in numbers of admired characteristics, but quite frequently chosen by the more positive type of boy as a companion. There are enough of these discrepancies that fit rather easily into these two categories to account for a considerable amount of the lack of relationship.

The "Guess Who" index was not found to be related to either of the indices derived from the use of the projective techniques at the 01 percent level of significance. When Table 7, page 142, is consulted, it is noted that there was a relationship between the "Guess Who" and the Rorschach index at the 05 percent level, which is expressed by the coefficient of correlation of .253. This is indicative of a positive and slight relationship between these two indices. There was also a relationship at the 05 percent level between the "Guess Who" scores and the Modified Time Sample expressed by a correlation coefficient of .291.

(14) The "Companionship Choice" index was found to be related to the Munroe Rorschach Check List index as expressed by a coefficient of correlation of .317. This relationship is at the 01 percent level of significance. In other words, there is a tendency for those who are most often selected as close companions to show less evidence of maladjustment on the Munroe Rorschach Check List. The "Companionship Choice" index was not significantly related to either the Rotter Incomplete Sentence Test index or to the Modified Time Sample index.

In reviewing the relationships found between the sociometric technique indices and other indices we find that not only are they related to each other to a considerable extent, but that they are related to indices found within every other group. They are most highly related to the indices found by using adult raters.

(15) Most of the relationships or lack of relationships between the two projective technique indices and other indices have been discussed. It will be recalled that the Munroe Rorschach Check List was significantly related at the 01 percent level and above to the Social Adjustment index and to the "Companionship Choice" index. The Rotter Incomplete Sentence Test was significantly related to the Self Adjustment index, the Social Adjustment index, and to the rating made by the psychologist at the 01 percent level of significance. None of these relationships were of a magnitude higher than that expressed by a correlation coefficient of .345. It is interesting in view of the wide interest expressed in projective techniques to note that there were few of the common indices of adjustment that were related in a significant manner to either of these indices. It is also noteworthy that wherever there were two techniques in the group of techniques available, we usually found significant relationships between similar approaches. In the case of agreement between the Munroe Rorschach Check List and the Rotter Incomplete Sentence Test we found relationship of a zero order. Categorizing a technique as projective is not as apt to bring similar results in assessing adjustment as if we use two techniques classified as inventories or questionnaires, for example. It is possible that the projective techniques chosen are measuring facets of adjustment ignored by other techniques. It is also possible

that they do not lend themselves to establishing a numerical index of adjustment status comparable to other commonly used measures. Neither of these projective technique indices were found to be significantly related with the Modified Time Sample index.

(16) Of the groups of indices used, the Modified Time Sample index seemed to be in the same class with the index established on the Heston factor of Analytical Thinking. The only relationship between the Time Sample index and other indices that was significant at the .01 percent level was that found between it and the "T and S" rating which has already been discussed. The major factor in its lack of relationship to other indices purported to assess adjustment seemed to be its poorness in distributing the subjects over a sufficient range on the adjustment-maladjustment continuum.

Discussion

An intensive examination has been made of the intercorrelations resulting from a comparison of the sixteen arrays of adjustment indices with each other. An attempt has been made as each relationship between arrays was examined to express what appeared to be logical explanations for either the existing relationship or lack of relationship. In Chapter VI another approach to these relationships between adjustment indices will be made. Here an intensive consideration will be given to the relationship of the various adjustment indices as they are revealed when applied to selected individuals. Prior to discussing individual application, there are certain points which

have been brought out by the data which merit discussion in the remaining paragraphs of this chapter.

General Agreement. The data show that for this particular group of adolescent boys there is, in general, a positive but low correlation between the selected measures purporting to assess adjustment status. This finding has implications for those who use such techniques for purposes of diagnosis prior to instituting therapy, for those who use such instruments as a basis for individual guidance, and for those who use such instruments to assess outcomes of guidance, counseling, or therapy procedures. The immediate implication is that it would be inaccurate and risky to draw more than tentative hypotheses in regard to an individual's adjustment status on the basis of any one score on any one of these measures. In fact, it would be hazardous to draw any hard and fast conclusions on the basis of results secured from only a few of these measures. The practice of using one index as a criterion of adjustment when evaluating different environmental influences or the efficacy of a particular therapeutic approach does not seem to be warranted by the data presented in this chapter. The low magnitude of the intercorrelations makes prediction in individual cases a precarious procedure.

Since forty-one correlations or approximately one third of the possible intercorrelations were significant at the 01 per-cent level, some common relationships between the various indices of adjustment status is indicated. Moreover, the fact that seventeen additional intercorrelations between the various indices

were significant at the 05 percent level adds support to this indication of relationship. This evidence cannot be dismissed lightly as it does lend support to the existence of some general characteristic of human behavior termed adjustment that can be measured by a variety of techniques. However, since the magnitude of such relationships was generally low, it appears that such a global concept is of limited usefulness as it lacks preciseness and common meaningfulness. For example, when the global concept of adjustment is compared to the global concept of intelligence, it is found to be less communicable in terms of scores established by instruments purporting to make such an assessment.

Factors Affecting Relationship Found. In considering the intercorrelations that were presented in Table 7, page 142, a number of factors other than adjustment appeared to have a bearing on the relationships between the various indices. In a comparable manner there appeared to be certain other factors that partially accounted for some of the lacks of relationship found. In the following paragraphs certain of these factors are briefly discussed.

The first factor which deserves mention and appears to account for some of the relationships found is the type of technique used. Among the indices established by questionnaires and inventories there were found to be eighteen intercorrelations out of a possible twenty-eight which were significant at the 01 percent level. This was a much higher proportion of significant relationships than found when these indices were

correlated with indices established by other techniques. Here it was found that there were eleven significant relationships out of a possible sixty-four. This same factor appears when ratings made by adults with different backgrounds and using different scales are examined. Here again there are much closer relationships between indices within the technique than between the rating indices and indices established by other techniques. The same thing appears between the two sociometric techniques. This state of affairs does not exist between the projective techniques chosen. Similarity of technique in at least three groups of indices may be a factor accounting for some of the relationships found.

When the relationships within and between these three groups of techniques (inventories and questionnaires, adult ratings, and sociometric techniques) are considered, another tentative factor accounting for part of the relationship found may be pointed out. It is possible to look at the questionnaire and inventory used as a self rating. The rating scales used by adults may be termed adult ratings. The sociometric indices could conceivably be thought of as peer ratings. It then seems within the realm of possibility that some of the relationship found between indices in these three classes of techniques might be accounted for on the basis that the person himself, the observing adult, and the observing peer reject and accept some common characteristics of a person's behavior in a related manner. The fact that all are established through personal observation and report may account for some of the observed

thread of relationship. It is possible that all of these ratings are influenced by the character reputation of the person. If such were the case, this then would be the common factor.

In the case of the California Test of Personality, where a correlation coefficient of .663 was found between the sections labeled Self Adjustment and Social Adjustment, it was pointed out that the boundary between self and social is an arbitrary one that is difficult to draw with precision. The overlap that was demonstrated rather clearly between these two indices may be the manifestation of a factor making for relationship when these indices are compared to other indices. Some of the significant relationships pointed out can very well be a result of the relationship existing between these two measures. This is demonstrated clearly when the two indices are found to show relationship with the other fourteen indices in an almost identical pattern and in many cases at approximately the same magnitude. The major exception is found in the relationship of these two indices with the sociometric measures where the Self Adjustment relationships are significant at the 01 percent level and the Social Adjustment relationships are at the 05 percent level.

The lack of relationship at a significant level between the adjustment indices of the two projective techniques chosen deserves some comment. It is recognized that many of the common projective techniques in use do not attempt to describe by a numerical index any particular status of adjustment. How-

ever, the two chosen are so adapted to do just that. When a relationship of the zero order was found between the Munroe Rorschach Check List and Rotter's Incomplete Sentence Test, it poses the question as to the usefulness of these techniques for this particular purpose. With this particular population an overall index secured by either technique seems to have little meaning in terms of adjustment status as defined by the other types of measures. When it is considered that the Munroe Rorschach Check List index was related to only the Social Adjustment index and the "Companionship Choice" Test index at the 01 percent level of significance out of the fifteen other indices of adjustment, it appears that this instrument is measuring something different than most of the other techniques. Further, the Rotter Incomplete Sentence index was related at the 01 percent level of significance to the Self Adjustment index, the Social Adjustment index, and the Psychologist's rating. It appears logical then that the demonstrated lack of relationship between the projective indices and other adjustment indices is a factor in reducing the number of significant relationships found.

Another factor in the lack of significant relationships was found in the use of the Modified Time Sample to secure an index of adjustment. This particular scale was found to distribute the population poorly, i.e., there tended to be a compactness of score groupings around the mean. While two observers were fairly reliable in their observations (agreeing in 86% of

the classifications in a sampling of 210 instances), this limited range would tend to cut down the relationships of this test to other indices of adjustment. In fact, there was only one instance where there was established a coefficient of correlation at the 01 percent level of significance and that with the Teacher and Supervisor rating. The fourteen instances of non-significant relationships at the 01 percent level contributed to the overall picture of lack of relationship found.

A surprising finding was the lack of relationship found between some indices bearing similar labels. Perhaps the outstanding example was the lack of relationship between the Social Adjustment scale of the California Test of Personality and the factor labeled Sociability on Heston Personal adjustment Inventory. The differences between the results secured through the use of sociometric indices and the indices mentioned above were also quite apparent. It is plain that labels as applied to tests designed to measure particular aspects of adjustment are apt to be misleading. There exist problems of definition that have not been adequately met in describing certain areas of adjustment. These unsolved problems of definition make it impossible to state that an individual is socially maladjusted or lacks sufficient social rapport on the basis of results secured from a test that may carry the label "social" in its title.

The influence on the results obtained by the factors which

have been described are probably insufficient to account for all of the relationships found. Likewise they are probably inadequate in explaining all of the lacks of relationship found. When all of these various influences have been pointed out there still remains a possibility of a general factor which might be called adjustment remaining to account for some of the relationships found among the various arrays of adjustment indices. Apparently this factor does not loom large in accounting for relationships found among the common means for assessing adjustment used in this study.

Theoretical Implications. Lack of well defined relationships among measures purporting to assess adjustment status raises the question that possibly there is no such thing as "adjustment." On an empirical basis, it is not so easy to rule out a characteristic of personality labeled "adjustment" which has enjoyed such long usage. The data at hand clearly indicates the lack of agreement among techniques used to assess adjustment status. It becomes necessary then to postulate that present techniques are either very inadequate in tapping related facets of a common process labeled "adjustment," or that they are measuring different kinds of adjustment. There is a further possibility that both inadequacy of present techniques and existence of specific types of adjustment co-exist to complicate the problem of measurement.

Present findings are not conclusive in helping to answer these questions. Obviously, if there exist many "adjustments"

that have little in common, there is need for separate clarification and definition. Until there exists a body of research data which clearly points to precise adjustment concepts, which can be communicated, the use of the term "adjustment" merits cautious reservations.

There is another question which can be raised in regard to the agreement among various indices purporting to measure adjustment. Is high intercorrelation a guide to those tests which are best, or is the entirely unrelated test, e.g., the projective, measuring an heretofore ignored and important aspect of adjusting? Obviously this question can not be answered without further analysis of the adjustment concept. The answer appears to hinge upon whether there exists separate "adjustments" or unrelated co-existing facets of the adjusting process and their relative importance.

Next Steps. The fact remains that the adjustment concept is still a hazy one and that present tests are not clear as to just what they are measuring. It seems necessary to make a detailed analysis of adjustment in operational terms so that precise definitions may be formulated. Perhaps one of the first steps is to agree upon what constitutes commonly experienced situations in our culture at various age levels and then proceed to analyze those situations in terms of adjustment. This is obviously a large project demanding the cooperation of many interested in making the concept of adjustment more precise. For the present those who use the term

"adjustment" appear to be obligated to define clearly what they mean when they speak of adjustment, if they are to be understood by those with whom they seek to communicate.

Some would suggest that a next step would be to analyze further the data presented in this study by the method of factor analysis in an effort to define the factors accounting for the thread of relationship noted in applying the various techniques. While such an analysis would be of some value, the correlations appear to be much too low to result in the development of conclusive new factors. In addition, the patterns of intercorrelations have suggested probable factors which have already been noted. To factor analyze the data brought forth in this study would not be basing such procedures on as representative a population as would be necessary to make such a procedure profitable. Elaborate statistical procedures would not change the basic data and might lead to generalizations that are premature. A factor analysis study by Cattell and Saunders⁵ using personality variables secured by three media illustrates the difficulties in working with variables drawn by diverse techniques.

A more logical next step, after commonly experienced situations can be defined in terms of adjustment, is to construct tests that will measure those situations. When such

⁵Cattell, R. B. and Saunders, D. R. "Inter-Relation and Matching of Personality Factors from Behavior Rating, Questionnaire, and Objective Test Data". J. soc. Psychol., 1950, 31: 243-260.

tests are constructed and made as reliable and valid as possible, they can be applied to representative populations. It would then be profitable to subject these results to factor analysis in an effort to purify further the techniques used. A series of such constructions should eventually result in techniques whose results can be communicated with less ambiguity.

In the process of constructing better tests, it is evident that those who deal with concepts of adjustment must be trained to use those concepts at a high level of proficiency. It was noted through the data of this study that the relatively well trained adult raters were more in agreement than those who had not been especially trained in this area. It was also noted that the relatively untrained rater was more reliable when using a technique defined in specific behavior terms - such as the Haggerty Olson Wickman Behavior Schedule B - than when using the more non-specific overall rating scale such as the "T and S" rating. If we must depend upon judges rating adjustment status as a present criterion of adjustment, the argument is for using those who are as well trained as can be secured.

In the process of constructing better measures of adjustment and training judges to use those measures, there is another technique for measuring adjustment which should be explored. After this study was in progress and too late for modification, the need was felt for some measure of adjustment which might be derived through the means of a situational test. When using

the Modified Time Sample technique, it developed that it might be profitable to devise some situation or series of situations that could be standardized for each subject where he would have to make an immediate adjustment which could be judged for appropriateness along the adjustment-maladjustment continuum. If this study were to be repeated, some such measure would merit inclusion.

There is a need to investigate further if completely unrelated tests, e.g., projective, are tapping important new aspects of adjustment or actually studying material unrelated to the level of adjustment. Only a few of the projective tests are recommended as useful in establishing a global index of adjustment. It needs to be determined more definitely if some of the projective tests can be used in this manner or if the nature of some of them makes it impossible for the results to be expressed in a single index.

Immediate Suggestions for Evaluation of Adjustment. In the light of present findings in regard to the use of tests or techniques purporting to establish a measurement of adjustment status for screening purposes with groups, what procedures can be recommended for immediate use until further research can be done? In order to answer the above question with any degree of satisfaction it must be taken into account that in this whole area of adjustment there are factors present that are not only difficult to define but which have not been clearly designated.

Since it is not possible at this time to clearly define independent factors or even co-existing factors in this area and measure them accurately, it seems best to use techniques for screening which are apt to show most relationship to a number of existing techniques. (If unrelated measures are used, then designation should be made that more than one kind of adjustment is being studied and the scores are not summated.) From the data presented in this study it appears that two types of measures, one of self acceptance secured through self report and one of social acceptance secured by a sociometric technique, are probably useful to point out the individuals who are most in need of immediate help.

It was found in this study that the Self Adjustment index as secured on the California Test of Personality was correlated at the 01 percent level of significance with ten of the other fifteen indices used. It was related to five other self report indices including the "C", "P", "E" triad of the Heston Personal Adjustment Inventory. It was also related to five of the remaining indices from other groups of techniques. If we want an index that is most likely to reflect what a group will do on a variety of techniques purporting to measure adjustment status, this one will be helpful. To make the identification of those needing help more definite, a "Companionship Choice" Test, similar to the one in the study, may be used as it was found to be related at the 01 percent level to seven

of the other fifteen indices. Six of these relationships are with techniques from groups other than the sociometric group. These two indices might best be used together with a particular group, if group status in line with a variety of adjustment appraisals is desired.

In particular, it would be recommended from the experience with this group (See Chap. VI also) to secure these two measures and then examine the lowest quartile scores in each index. Scores in the lowest quartile on these measures would have picked out (with the least investment of time) the boys who appeared to be demonstrating the most serious conflicts with their environment. It is then with these individuals so screened from the group, that more intensive work could be planned. It is during this intensive work that the experienced diagnostician will find helpful the cues elicited through projective techniques, behavior ratings by adults, direct observation, interviews, and other techniques. There is no intent to belittle the contribution made by such techniques as the projective, for example, in providing the source for hypotheses necessary in working with individual cases. When the chosen projective techniques were used to establish overall scores of adjustment, they were not found to be in close agreement with scores established by means of other commonly used techniques.

If these commonly used measures of adjustment lack definite agreement among themselves, what can be done to improve the

immediate situation? First, it is necessary to discard the practice of using the results of one technique as "the criterion" to measure difference between groups on the adjustment variable. Since there appear to be no precise criteria of adjustment now available, those who report results of therapy, counseling procedures, or environmental manipulations in terms of change in adjustment as measured by existing techniques, should include a variety of measurements secured through the use of many of these techniques. If statistically significant difference can be shown between compared groups on a variety of measures purporting to assess adjustment, more trust can be put in those results.

Summary. To recapitulate, the data shows positive but low correlation in general between the various indices of adjustment. This furnishes some evidence for a global concept of adjustment. However, such factors as related techniques, overlap between tests designated self adjustment and social adjustment, and elements of character reputation may have increased the number of significant relationships found. Such factors as the unrelatedness of projective techniques, the inadequacy of the Modified Time Sample technique, and the confusion of terms as indicated in the unrelatedness of similarly labeled tests may have accounted for part of the lack of relationship found.

Recommendations have been made in regard to the use of

present techniques for screening purposes with an emphasis on a self report of adjustment and a peer report of adjustment. Recognition has been made of the use of other existing techniques as bases for hypotheses in individual cases. Some of the next steps have been formulated to deal more effectively with the concept of adjustment. The need of using many test results instead of one or a few in criteria studies has been emphasized. A more detailed analysis and definition of adjustment should lead to the construction of better techniques and to the training of judges to use those techniques.

CHAPTER VI

FIVE CASE STUDIES REPORTING INDIVIDUAL SCORING ON THE ADJUSTMENT MEASURES

Introduction

Having considered the relationships existing between the various measures used to appraise the adjustment status of the study population, it becomes a logical next step to consider individual cases. One of the judgments made in Chapter V after comparing the group data was that, in attempting to study individual adjustment, extreme caution must be used in an interpretation of any one score derived from a particular technique. It was recommended that, because of the lack of communality of concepts in the adjustment area, perhaps the only approach with any merit toward assessing adjustment in an individual case was to utilize many techniques in arriving at hypotheses in regard to individual adjustment. Since the data is available in regard to each individual participating in this study, it might be profitable to examine a few example cases.

It is the purpose here to review as concisely as possible the environmental background of each of the chosen cases and then to present the scoring of the individual on the various techniques for assessing adjustment status. An attempt

will be made to formulate certain hypotheses in regard to the rationale behind the scores presented in the light of what is known about the subject's typical behavior prior to the study. An effort will also be made to evaluate the diagnostic significance of the test results in the light of subsequent behavior in the more than two years following the appraisals. Any conclusions drawn will necessarily be limited by the uniqueness of each case. The complexities of environmental and individual characteristics and their patterns of interaction make for an admitted subjectivity. However, since we have found no consistently high relationships between the various adjustment appraisals within the group, the individual approach may be profitable in clarifying reasons for this apparent lack of high relationship.

The five cases chosen to be examined as individuals were chosen to meet the following criteria: (1) two cases to be chosen who scored in the upper quartile on the California Test of Personality Self Adjustment Scale and also in the upper quartile on the "Companionship Choice" Test; (2) two cases to be chosen who scored in the lower quartile on these same measures; (3) one case that did not meet these two criteria; (4) all cases chosen should be boys about whom there was fairly complete knowledge both prior to the study and following the testing period; (5) cases should cover boys who had remained in the institution and boys who had gone from the institution; (6) inasfar as possible cases should

demonstrate certain unique features that might possibly be reflected on the measures of adjustment.

Each case chosen will be treated in the following manner. A summary of background prior to admission to the O. S. & S. O. Home will be made. A summary including records of school achievement, behavior observations, psychological data, and medical data will be presented. A patterning of individual scores on the various adjustment measures, in comparison with the group mean, will be made. A summary of subsequent history in the two years following the study will be presented. Tentative conclusions will be drawn in regard to each case in connection with the diagnostic features of the adjustment scores wherever possible. Names of persons and places will be omitted as is customary with such personal data. However, the facts as found will be reported with no attempt to fictionalize any evidence from the environment or behavior observations in the interest of making clearer illustrations. Obviously, any one of the cases of the sixty-six participants in the study would have its own unique contribution to make to this inquiry, but time and space warrants only the consideration of the five chosen.

Presentation of Cases

Case <u>#8858</u>	Admitted to O.S.S.O Home <u>5-6-40</u>
Date of Birth <u>12-4-33</u>	Age at time of Admission <u>6-5</u>
Age as of June 1, 1950 <u>17-2</u>	Years of Residence as of June 1, 1950 <u>10-1</u>

Family Background: Case #8858 came from a family with a rural background. Father and mother both grew up on neighboring farms. The father was born in 1897 and the mother in 1901. Both paternal and maternal relatives were known as small farm owners with satisfactory community standing. Investigation did not reveal any existing court records which would indicate any major conflicts with society on either side of the family.

The subject's father served in World War I and was honorably discharged in 1919. The father married the subject's mother in 1922. The father was interested in mechanics and left the farm shortly after marriage to become a mechanic in a nearby medium-sized town. During the early and mid-thirties he owned his own garage and his own home. He was known as a good workman until his health failed. The marriage was reported to be happy and there was conscientious regard for the children.

The subject's mother was a farm girl, who had a reputation for running a neat, clean home. She was reportedly happily married and took pride in her family. She died 10-13-1935, when the subject was under two years of age.

After the mother's death, the father held the home together with the aid of the paternal and maternal grandparents until his health failed in 1939. The father at that time was told he had developed a serious heart and rheumatic condition that demanded a warm climate.

The subject was the youngest of five children. He had a sister who was ten years of age when he was born. One brother who was nine, one seven, and one three when he was born. These children were all described as normal with no serious behavior deviations. No particular patterns of rivalry or poor relationships among the children were noted.

After the father's health failed, he sold the home to provide funds for a new start in Florida. The oldest girl, at this time sixteen years of age, remained in a family where she could continue high school and earn her keep by helping with smaller children. The oldest brother, who was now fifteen, accompanied the father to Florida. The next oldest boy was placed in a boarding home by local agencies. The two younger boys lived for a few months with the paternal grandparents, who were quite old, on a farm, pending their acceptance at the O.S. & S.O. Home.

The subject and his next older sibling, six and nine years of age respectively, were admitted to the O.S. & S.O. Home on 5-6-40. Subsequently, both boys graduated from the O.S. & S.O. Home. The oldest boy graduated in 1948 and the subject graduated in the Spring of 1952. The oldest girl

graduated from Ohio State University and prior to her marriage taught for a time in a small mid-western college. The next oldest boy entered military service at the beginning of World War II and remained in the service. The next boy graduated from Ohio State University and now holds a commercial position in a large mid-western city. The older brother, who entered the O.S. & S.O. Home, graduated from that institution with honors and a good record. He became a printer by trade and attended Ohio State University for several quarters before being called into military service. The father is still living and resides in a Veterans' facility in the State of California.

Summary of Subject's Residence at the O.S. & S.O. Home

Psychological Records: Upon admission to the Home the subject was examined with Form M of the Stanford-Binet Intelligence Scale. His chronological age was 6-5 at the time of testing. He established an M. A. of 7-2 with a resulting I.Q. of 112. This was thought to be a minimum rating as the boy was recovering from an illness and was not feeling up to par. His failures on several items were by very narrow margins. He was described as responding willingly to the testing procedures and displaying no outstanding emotional reactions. His performance was characterized by careful observation and deliberate action.

The California Test of Personality was given at the age

of 11-1 and again at the age of 13-4. At eleven he showed an overall adjustment level at the 40th percentile, reporting a lack of feeling of personal worth and a lower than normal feeling of belonging. He reported some nervous symptoms in the nature of poor appetite, bad dreams, and being easily susceptible to colds. He also reported lack of knowledge in the social skill area and poor community and school relationships. At 13-4 his overall adjustment rating was at the 50th percentile level. He reported improving conditions in every area except those of personal freedom, knowledge of social skills, and community relations.

Mechanical aptitude tests, given in 1948, indicated average to superior comprehension in mechanical areas. He was retested in 1948 on the Stanford-Binet Intelligence Scale. At the time he was 14 years, 4 months, of age. He established a mental age of 19 years, 7 months, with a resulting I.Q. of 141. At the same time he established an M.A. of 18-9 on the Grace Arthur Performance Scale. When interests and attitudes were compared with other eighth graders by means of the Pressey Interest-Attitude Test, he was found to be more mature in this area than eighty percent of his peer group. On the T.A.T. some cynicism was expressed. There seemed to be some conflict arising from his desire for group approval which did not seem to always be meted out according to his personal standards of conduct. He expressed some hostility directed toward authority, which seemed to

mirror a certain impatience with the routinized institutional mode of living. In personal interviews most of his reactions were positive with the exception of considerable criticism directed toward the adults in direct charge of his supervision. Some of this critical attitude was probably based on justifiable provocation. He did reveal considerable insight into his feelings. It was reported at this time that the subject frequently withdrew from group activities to engage in the more solitary activities, such as reading, listening to the radio, and brooding, but these were not felt to be extreme. He reported a normal sexual development with no attitudes that would demonstrate severe conflict in this area.

This boy was never referred as a severe behavior problem by other departments. Concern was shown at times by school areas when it was felt that he was underachieving. He occasionally came in to the department on his own when he felt the need to discuss some problem such as procedure to get approval to make a summer visit out of the state or to secure advice on some school course selection.

School Records: He had begun the first grade prior to admission but had been out of school from December until May with whooping cough. He was re-assigned to first grade the first year after admission. Progress from then on was satisfactory. The subject was described as a quiet child with a

tendency to become bored. It was noted that he was solitary, careless, and forgetful. His teachers felt that he did not work to capacity. In the intermediate grades he was described as an avid reader but very careless in subjects demanding detailed accomplishment. Toward the end of this period the quality of school work was noted to be improving. He was reported to be becoming increasingly able to discipline himself. Throughout Junior High his yearly achievement scores on standardized tests were usually two years ahead of his grade placement. However, he was still reported as doing careless daily work. At the tenth grade level grades were average to above.

Teachers over the years rated him consistently as a good student but one who had to be challenged. He was noted for his quietness and inclination to carelessness. He was never reported as a difficult behavior problem in the school area.

Dean's Records: Upon admission he was a quiet, docile child in the cottage. He was enuretic until nine years of age. He had a tendency to withdraw from the larger group and take part in quiet activities with a few close friends. He became more active as he grew older and during his early teens was quite interested in Scouting, camping, fishing, etc. He was interested in athletics and took part as a member of teams but was never outstanding.

He was noted by supervisors as inclined to be sarcastic and to evade doing his share of work in the group living quarters. He was seldom defiant and, while normally mischievous, he never was in severe difficulty. In his early teens he did participate in some petty thievery within the cottage but never became habitual in this behavior.

Medical Records: He had a T. and A. at seven years of age. Two years later the subject began wearing glasses. His eyes became steadily worse until he reached a 20/300 rating without glasses, which was corrected to 20/30 with glasses. His most common ailments through the years were upper respiratory infections and numerous stomach upsets. He was a tall, slender boy who was always underweight (as much as twenty pounds) but seldom actually ill or complaining of illness.

In summarizing his record at the O.S. & S.O. Home, it can be said that the subject is a boy of superior mental ability, who does not distinguish himself in any area. However, he seemed to adapt himself to his environmental circumstances with a minimum of conflict. He was always known as a hesitant participant in group activities. There appears to be no evidence of any severe degree of instability and maladjustment, but there is evidence that at no time did those working with him feel that he was accomplishing at a level consistent with his ability potential.

A Discussion of the Scoring of Case #8858 on the Adjustment Indices: With this background of the subject that has

SCORING ON ADJUSTMENT INDICES BY # 8858

FIGURE 1

just been presented, it is now possible to discuss his scoring on the individual measures. In order that this comparison may be facilitated, all adjusted scores on each instrument have been changed to standard scores. Figure 1, on page 201, presents the individual profile on the various indices. An examination of this profile immediately suggests that on a majority of the indices used to assess adjustment that this subject would be rated above average. The psychologist's rating was the highest index. The lowest indices were identical in magnitude and established on the "Sociability" factor of the Heston scale and on Rotter's Incomplete Sentence Test. These latter scores were only slightly below the mean standard score. The profile would suggest average to above levels of adjustment with no particularly outstanding features.

When we search the history and attempt to associate this profile with the environmental evidences, a certain consistency can be noted. Here is a bright boy, who is not particularly outstanding in the quality of adjustment he has made to his environmental circumstances, and on the other hand he has absorbed the misfortunes of an early loss of what is considered a normal home life without too much loss to his personality integration. He evidences under-participation in group activities and an accompanying shying away from a great deal of social involvement but certainly not to an abnormal degree. In fact, he was above average in his acceptance by

the group. The profile in this particular case seems to be rather well substantiated by the case history evidence available up to the time of testing.

Subsequent History: Since June, 1950, the subject took more pains in his scholastic endeavors. Upon graduation he had achieved the highest grade point average in his class. He became interested in continuing his education and contacted the Psychology Department for guidance in the selection of courses, and increased study habit efficiency. He took increased interest in extra-curricular activities, especially dramatics and music. He played the lead in several dramatic productions. Upon graduation in the Spring of 1952, he made arrangements to enroll in the small mid-western college under a scholarship provision where his older sister had taught. He was seriously considering a journalistic course as he had taken printing as a trade with the hope of eventually doing work in the newspaper or magazine area.

During his last year in high school he took part in boy-girl activities and was usually seen with a date at the weekly parties held by older students on the Home Campus. He continued to have difficulty in the cottage living where he gave more voice to his dissatisfactions in regard to the routinized living. However, this usually took the form of frank expression of disagreement with his cottage supervisor which might be considered as only the normal seeking of a

boy of this age for independent status.

In 1952 this boy made a 93 centile rating on the O.S.P.E. form 23. This was the only recent test data of psychological nature available.

Summary: This subject was known to have met his environmental situations in an acceptable manner. While certainly of above average ability, evidence would indicate a slowly developing drive to become a more efficient person in keeping with his ability level. While not optimally well adjusted he could not be considered maladjusted. Most of the adjustment indices used in this study substantiated his average to above average adjustment status.

In this particular case it appears that the two scores recommended -- one of self adjustment and one of social acceptance -- would have for all usual purposes placed him in about the proper category. Depending upon one's purposes, the data could have been further analyzed in terms of specific responses where we are able to get clues as to individual preferences and individual annoyances. In this particular case such an analysis would not contribute enough to the present picture to warrant inclusion.

Case # 4961Admitted to O.S.S.O. Home
3-23-44Date of Birth 9-4-34Age at time of Admission
9-7Age as of June 1, 1950 15-9Years of Residence as of
June 1, 1950 6-2

Family Background: The subject was born into a family whose court record goes back to 1923. Occurrences such as vagrancy, eviction, non-support, drunkenness, prostitution, and public support were the common state of affairs. Prior to the subject's admission to the O.S. & S.O. Home, he had been in and out of County Children's Homes a number of times. The family had moved around a great deal. The family unit was always characterized by instability and turbulent family emotional situations.

The subject's father was born in 1895 in a mid-western city and was orphaned at the age of twelve. He was reported to have had only a small amount of formal educational experiences. He was a packing-house worker, moving from city to city and from one job to another. He was constantly getting intoxicated and losing one job after another as a result of not showing up for work and continuous brawls with fellow workers and his bosses. He took little or no interest in his children and never adequately supported them. He was discharged honorably from the army in 1919. He served a six month sentence in 1942 for non-support. When the children were admitted to the O.S. & S.O. Home in 1944 his where-

abouts were unknown and he has not been heard from in the last eight years.

The mother of the subject was born on an Ohio farm in 1901. She was thought to have had an elementary education. She was married at an early age. Prior to her marriage to the subject's father she had already been married twice and divorced from both husbands. She worked off and on as a waitress in low class cafes. She was a poor housekeeper and agencies early reported that she and the children were content to live in filth and neglect. She was listed in police records as a prostitute and lived promiscuously during her married life. By 1944 she was reported to have had fourteen pregnancies with five miscarriages. She was never consistent in her discipline with the children. She would take her children across town to whatever cafe in which she was then working and feed them rather than prepare meals at home.

The subject is one of the male twins born after the mother had had three previous children while married to the subject's father. There were also two younger siblings born during this particular marriage. The subject's oldest brother, born in 1930, was convicted of stealing in 1942 and sentenced to Boys' Industrial School. Prior to this offense he had been truant from school and had run away numerous times from a County Children's Home. The next brother, born in 1932, established a court record in 1943 with continued

running off from the Children's Home and incorrigibility. He, too, was sent to the Boys' Industrial School. The older sister, born in 1933, was admitted to the O.S. & S.O. Home in 1944 at the age of eleven. In 1949 she was reported as very unhappy and was placed in a boarding home. While in this home, she became very despondent and attempted suicide by an over-dose of sleeping pills. She was admitted to a mental hospital and responded to psychiatric treatment. She received training as a nurses' aide and at the present time is making a satisfactory adjustment. The twin sibling has always been weaker physically and slower mentally. He is one year retarded in scholastic progress when compared to the subject. He is still at the O.S. & S.O. Home but continues to evidence instability. He was recently away without leave from the Home and is requesting permission to enlist in a branch of the armed service. A younger sister, born in 1937, was placed in a boarding home and seems to have made an adequate adjustment. The youngest brother, born in 1938, resides at the O.S. & S.O. Home. He is a very bright boy, who makes excellent scholastic progress but is considered moody, occasionally very unrealistic, a bully with younger children, and rather unstable emotionally.

The subject had resided fairly regularly in a large children's home near one of Ohio's large industrial areas since the age of six. When he was 9-7 he was admitted to the O.S. & S.O. Home, along with his twin, an older sister, and

a younger brother. Admission was requested upon the basis that these were eligible children for the O.S. & S.O. Home and as usual the institution in which they were living was crowded and needed the vacancy created by moving these children for those not eligible for placement elsewhere.

The subject was reported as having made a satisfactory adjustment at the Children's Home. He had presented no serious problems and had advanced scholastically to fourth grade status. He has lived in the O.S. & S.O. Home continually since admission with little or no contact with members of his family other than those siblings also living at the O.S. & S.O. Home.

Summary of Subject's Residence at the O.S. & S.O. Home.

Psychological Records: Prior to the subject's admission to the Home he was examined on 3-6-44 with the 1916 Revision of the Stanford-Binet Scale. He was 9 years and 6 months of age at the time of this examination. He established an M.A. of 10-6 with a resulting I.Q. of 110. After admission he was re-examined on 3-27-44 with Form M of this same scale. He established an M.A. of 9-10 with a resulting I.Q. of 103. At this time it was reported that cooperation was excellent. It was felt since many tests were failed by a narrow margin that he would be able to demonstrate at least high average ability under favorable environmental conditions. On 6-5-48 he was re-examined with Form L of the Stanford-Binet Scale.

At this time he was 13 years and 9 months of age. He established an M.A. of 15-1 and a resulting I.Q. of 112. His reactions were normal and he seemed to be reflecting positive feelings toward his environment and school program.

When he was 12-6 he responded at the 80th percentile level on the California Test of Personality. He showed some inadequacy in his knowledge of social skills but feelings were for the most part positive. In the Spring of 1949 he was given a battery of mechanical aptitude tests. At the time he was nearly 15 years of age. He showed average to high average levels of aptitude on all of these tests.

This boy was never referred directly to this department by other departments as an observed behavior problem. He did come in several times to confer in regard to cottage problems. In those interviews he was noted to have a higher sense of right and wrong than usually found in institutional boys. He was always rather reticent and self-sufficient but still maintained a high cooperation level. Nothing except a certain felt tenseness and emotional brittleness indicated that he was not functioning at an optimal level.

School Records: Because of a rather poor showing on standardized achievement tests and because he was a year accelerated, he was replaced at the third grade level when admitted to the Home. His early school reports indicate that he was inattentive, lacked initiative, but was dependable.

In his second year at the Home there were increasing reports pointing toward good citizenship and dependability. In the middle grades scholastic progress became very good with achievement a year to two years ahead of grade placement on standardized tests. He was reported as a good student who was not satisfied with mediocre work.

During the Junior High years he was consistently rated at the B level and above in all subject areas. He chose printing as a vocational pursuit and early established a record of dependability and conscientiousness in that area. He became a leader in his class as well as taking responsibilities in the Junior R.O.T.C. program, Scouting, athletics, and band. By the time he was finishing the ninth grade he was making full use of time available.

Dean's Record: The subject soon became a leader in his cottage group. He was dependable and often given responsible jobs. As he grew older he was frequently the envy of other boys as he was able to earn more privileges through being dependable. There were times when the subject was in conflict attempting to make himself acceptable to authority and also to his peer group. However, he made a good showing in athletics and could back up his stand with physical power if necessary so that he was able to resolve this conflict with no serious breaks with either the group or authority.

He began to be interested in boy-girl affairs at an early age. He demonstrated no severe problems in his sexual

development. He was occasionally involved in pranks and mischief but never had any record that would indicate delinquency trends. His worst fault seemed to be that of making weaker boys do things which, though approved behavior, need not have occasioned the use of force.

Medical Summary: When admitted as a new child the subject showed some evidence of nervous tension as indicated by a habit of fingernail biting. He was found to be slightly underweight but otherwise in good health. Through the years most admissions to the hospital were as a result of injuries - most serious of which was a dislocated elbow. He has had several minor lacerations and some otitis media.

In summarizing this subject's history, it can be said that he was subjected to early environmental traumatization in the family areas which did not seem to leave a severe lasting effect. He is a bright boy who has seemingly been able to respond to environmental stimulation and to accept the ethical codes of a culture somewhat different from the code of the culture in which he was born. He seems to have made use of his potentialities for development and, with the exception of a certain emotional aloofness, he has maintained a satisfactory rapport with all elements of his environment.

A Discussion of the Scoring of Case #4961 on the Adjustment Indices. With the historical background of the subject before us it is possible to examine his scoring record on

STANDARD SCORES

SCORING ON ADJUSTMENT INDICES BY # 4961

FIGURE 2

the individual adjustment indices. In Figure 2, page 212, the profile of the subject is presented.

An examination of the subjects profile indicates that on a majority of the indices used his standard scores show average to above average levels of adjustment. It is interesting to note that those indices obtained on the Heston Personal Adjustment Inventory, which were found to be most closely correlated, are the ones which show the lowest adjustment status. Five of these indices fall around the standard score mean. These indices if used alone would have indicated only an average degree of adjustment, which in this particular case would seem to represent a minimal picture when compared to the case history data. The psychologist's rating showed the highest level which is perhaps logical when it is remembered that this rating was arrived at initially by taking into consideration the environmental stresses through which the individual had come. The rather high rating found on the Analytical Thinking "factor" of the Heston scale is consistent with the intellectual drive evidenced by this particular boy which bears out the author's point that such a factor is not identical with ability but more in line with intellectual ambitiousness.

When the historical data is compared to the resulting profile we find consistency in this particular case. The outstanding feature of this case is the inconsistency between early experience in a very unstable family constellation and

the later apparent satisfactory relationship with all elements of his environment. What are the factors involved that enabled this boy to make a relatively good adjustment while siblings, experiencing similar stresses, were not able to make comparable adjustments: In this case we have a non-identical twin with which to make comparison. The differences between the two seem to be the existence of lower ability and poorer physical development. Are these two factors able to account for manifest difference in adjustment status? These questions cannot be answered with any degree of certainty because it is now impossible to trail all of the complex differentials in treatment, experience, physiological structure, etc. However, we can safely report that, in this instance, early environmental circumstance was not the prime influence in the level of adjustment achieved.

Subsequent History: The subject will be a member of the 1953 Senior Class at the O.S. & S.O. Home. He has continued to make excellent scholastic progress. He has consistently received the highest grades in his class and has made good progress in printing which he chose as a trade. He has been outstanding in athletics - taking part in all major sports. He reached the Eagle rank in Scouting and has continued to serve in leadership positions in that organization. He has been active in all group activities on the campus and has attained the highest rank in the Jr. R.O.T.C

Unit. He will, in all probability, graduate with honors.

He has become more relaxed in his relationships with authority but has lost some of the popularity he once had with the group because of his drive to go beyond mediocre achievement. Perhaps as a result of some peer criticism he has struck back on several occasions by bullying those who are weaker physically. Even in these instances he responds to counsel and seems to endeavor to make of himself a dependable conscientious citizen.

On 2-9-52 he was retested, using the Wechsler Bellevue Intelligence Scale. On this instrument he established an overall I.Q. of 119. There was some difference between the Verbal I.Q. of 123 and the Performance I.Q. of 109. He was still found to exhibit considerable tension, which seemed to stem from an anxiety in regard to quality of performance. On the O.S.P.E., Form 23, he established a 43rd centile rank.

Summary: A review of this case reveals a bright boy, who had suffered a very poor family environment at an early age, reaching average to above average adjustment levels as measured by representative indices by the time he had reached mid-adolescence. Subsequent development would indicate a continuation of those levels of adjustment with an eventual level of efficiency consistent with ability potentials.

In this case the screening technique recommended would

have placed this boy in a category of adjustment status that seems consistent with case history material. There is, in this case, some evidence of tenseness and lack of deep emotional ties that seem at present to be sublimated through acceptable environmental accomplishments. It is difficult to predict just how much more stress this particular personality might be able to withstand. At the present writing there does seem to be an overall consistency between observable behavior and the overall picture developed through the use of the several indices of adjustment.

Case #5278

Admitted to O.S. & S.O. Home
1-11-48

Date of Birth 3-15-36

Age at Time of Admission
11-10

Age as of June 1, 1950 14-3

Years of Residence as of
June 1, 1950 2-5

Family Background: The subject's family were industrial workers in one of Ohio's larger cities. The family comes from the semi-skilled to skilled labor occupational groupings. They had an unstable economic background tied to the economic fluctuations of the times. When work was plentiful they lived well without much preparation for more difficult times.

The subject's father was born in 1890 in the industrial area of Pennsylvania. He completed the sixth grade, leaving school to go to work as a Western Union messenger at the age of eleven. He eventually became fairly well skilled in carpentering but was periodically unemployed. He was married

in 1916 to the subject's mother. After his first wife's death in 1936, he re-married in 1938. This second marriage lasted scarcely a year. His second wife secured a divorce on charges of cruelty and neglect. He again re-married in 1942, with the third wife dying in 1946. He was discharged from the army in 1919, partially disabled. During the period after his first wife's death he drank excessively and made advances to housekeepers, which made it difficult for him to secure anyone to look after his children. He was arrested a number of times for drunkenness and cruelty to his children. On 8-22-47 he was diagnosed as an active case of tuberculosis and sent to a Veterans' hospital. He is reported to have fluctuated in his attitude toward his children - being excessively cruel at times and over-solicitous at other times.

The mother of the subject died just three months after the subject was born from scarlet fever. She, too, came from the semi-skilled laboring class. She completed grade seven. Prior to her marriage to the subject's father, she had had an illegitimate daughter. She was supposed to have been a good mother, establishing a fairly close tie with her older children, and keeping the home operating even when finances were scarce. During the subject's early life he was cared for by a succession of housekeepers and finally the second wife. This woman was reported to be cruel to the children and the home was frequently disrupted by domestic

altercations. The third wife was reported to have treated the children well and to have been especially fond of the subject.

The subject was the youngest of seven siblings. In fact there are six years between himself and his nearest sister. An older brother, born in 1917, was grown and on his own at the time of the subject's birth. A sister, born in 1920, was arrested in 1938 for immoral sex behavior and sent to Girls' Industrial School. She was discharged in 1941 and has since married and seems to be making an adequate adjustment. A brother, born in 1922, was apprehended in 1939 for burglary and sent to B.I.S. He was discharged from that institution in 1940. He was killed in 1952 in an explosion in the steel mill in which he worked. A brother, born in 1926, grew up in a boarding home in which he was placed in 1936. He is at present married with two children and seems to be fairly stable and well adjusted. Another sister, born in 1928, lived for a short time with the last mentioned brother until she was married. The sister next to the subject was born in 1930 and lived for the most part with the married brother. She works in a factory and continues to live with this brother. She has never been in conflict with society.

The subject lived in rented rooms with the father after the third wife's death. He was inadequately supervised as the father was intoxicated much of the time. The boy ran the streets, was truant from school, and was in a number of

minor escapades, such as stealing bicycles, breaking windows, etc. After one of these escapades juvenile authorities, feeling that he was rapidly becoming a delinquent, placed him in a boarding home that already contained five younger children. The subject became an immediate source of difficulty for the boarding-home mother. He bullied the younger children, stole from the boarding-home mother and was difficult to manage.

Since the subject had shown difficulties in control and had been over-indulged and inadequately supervised by his father, the court sought other placement for him. In 1939, admission had been sought for the subject and some of his siblings in the O.S. & S.O. Home but, because of adequate finances and the feeling that the community had not used all of its own resources, admission had been disapproved. Since the father's physical condition now made it imperative for some other placement for the boy, he was admitted to the Home in 1947.

Since the subject's admission to the Home, the father has been discharged from the tuberculosis sanitarium. He lives for a time with each of his married children. He continues to drink excessively and writes elaborate promises to the subject in regard to taking him from the Home. The subject continues to hope that he may go with his father. His married brothers and sisters take the subject for infrequent vacation periods but he seems to view them only as

a source of money and pleasure.

Summary of the Subject's Residence at the O.S. & S.O. Home

Psychological Records: Prior to the subject's admission to the Home, he was examined on 9-29-47 by means of Form L of the Stanford-Binet Intelligence Scale. At the time of this examination he was 11 years and 8 months of age. He established an M.A. of 13 years and 0 months, with a resulting I.Q. of 111. He was reported friendly and cooperative in the examining situation. His vocabulary level was outstanding. His poorest performance was on tests involving visual imagery and visual memory. Upon admission to the O.S. & S.O. Home, he was tested with the Grace Arthur Point Scale of Performance Test on 1-13-48. At the time he was 11 years and 10 months of age. He established an M.A. of 17 years and 0 months on this instrument. He was found to be quick and efficient in manipulative situations and to be superior in planning effective methods of attack in these performance tests. He appeared enthusiastic and was intrigued by the self-competitive situation. On 1-21-48 he was examined using Form M of the Revised Stanford-Binet Intelligence Scale. He established an M.A. of 13 years and 4 months, with a resulting I.Q. of 113. He cooperated well but did not display the enthusiasm noted previously on the Grace Arthur Scale. His vocabulary level was high but he again demonstrated some lack of visual memory.

On 1-11-48 the subject was given Rogers' Test of Personality Adjustment. His overall score indicated an average level of adjustment but he made a high score in the Social Maladjustment area. His responses indicated considerable desire to reach an exaggerated position in the eyes of his associates, which he now felt he did not enjoy. In early interviews he was quite friendly and talkative as long as the family area was not mentioned. Any reference to his home life or his father evoked resistance and tears. He assumed no responsibility for past acts and projected blame on associates and the boarding-home mother. He could not discuss adjustment in the sexual area though it was known that he had engaged in mutual sexual stimulation with some of his peers prior to his admission. He indicated interest in music, art, and creative activities.

In the two years prior to this study the subject has been referred by other departments for continuing infantilism. He has been in several stealing episodes involving some shoplifting in downtown stores. He has been hostile toward his women supervisors, cursing them out on occasion. He has run away several times but has always returned on his own volition. He has been moody, shifting from clown-like antics to sulky depressions. He has always responded to counseling in a friendly manner but has never made any strong identifications or been seriously concerned about his development. Most adults like him as he usually appears smiling and en-

thusiastic, but all have at one time or another complained about his mischievousness and lack of responsibility.

School Records: The subject had been in Grade 5 prior to admission and had been reported as a good student. His score on a standardized achievement test upon admission was high enough to indicate at least a 6th grade placement. He was so enrolled in the middle of the year and made very good progress, showing a 9.4 grade placement on a standardized achievement test given at the close of the school term. Teachers reported a very good classroom adjustment.

He did not make as much progress in the next two years of school attendance at the Home schools but he did receive average grades and was promoted both years. Teachers increasingly complained of his uneven achievement from day to day. There were times when he did an excellent piece of work and other times when he would do as little as possible for several days in a row. He would take part in extra-curricular activities for a little while but then lose interest and, if permitted, would soon drop out. He showed aptitude in music, art, and dramatics, but soon lost interest. He continued to take instrumental music but had to be forced to practice and participate in the band activities. He was well coordinated and apt in athletics but would soon get angry at the coach or his fellows and quit the teams he tried out for.

He had a flair for creative writing and turned out several original themes and poems that merited publication in the institutional journal. He took numerous books from the school library and did a great deal of independent reading.

Dean's Records: The subject would at first do no work in the cottage at all. He entered the group with a chip on his shoulder. When he wouldn't even make his bed the other boys were scornful of him. He seemed to desire to be made the center of attention and was continually testing the authority of the person over him. He has a long record of continuous breaking of institutional rules in regard to boundaries, smoking, and care of property. He has been in continuous conflicts wherever he has had to be supervised by women. He has been defiant and on several occasions cursed those in charge.

He has been a compulsive smoker since entrance and has stolen and bullied others to supply him with cigarettes. He has run off twice in two years with other boys. He has always turned himself in or returned when he has become tired and hungry. He was involved in some shoplifting but when found out returned the merchandise without evidence of guilt.

He has always complained that he wasn't being given a fair deal even when people had gone out of their way to secure some privilege for him. He has been counseled, punished, and worked with on an individual basis but he still

remains irresponsible, self-centered, and the clown.

Medical Records: He was found to be a normal healthy boy on admission. He has had few clinic or hospital admissions since entrance. His medical record indicates excellent physical development. He has been treated several times for lacerations and contusions, received while participating in football and other active games.

In summarizing his history, it appears that the subject is a bright boy who is erratic in his adjustment to his environment. His unevenness of development, with behavior now mature and then infantile, indicates a lowered adjustment status. His delinquent acts without apparent guilt speaks of a poorly developed value system. His inability to express himself in conflict areas further substantiates the existence of poor psychological integration. His spurts of scholastic achievement and his general likeableness when not in a depressive mood are indications of his potentials for adjustment.

A Discussion of the Scoring of Case #5278 on the Adjustment Indices: With the background of the subject presented, it would be expected that the indices of adjustment should reflect some degree of maladjustment. In Fig. 3, page 225, this subject's profile is presented in terms of standard scores.

Inspection of the profile portrayed in Fig. 3 shows that on twelve of the indices he scores below the mean standard score. However, on four of the indices he rates considerably

FIGURE 3

SCORING ON ADJUSTMENT INDICES BY # 5278

225

above the mean. His score on the time sample is the lowest, followed closely by his reported score in the self adjustment area. His highest score was on the Rotter Incomplete Sentence Test. His scores on the Rorschach, the Analytical Thinking "factor" of the Heston, and the Sociability factor of the Heston were all well above the mean.

When one attempts to consider the profile in the light of what is known about the subject there are certain pertinent factors that appear. The high score on the Rotter Incomplete Sentence Test occurred as a result of his taking each beginning possible and using it to refer rather jokingly to the Cleveland Indians' Baseball team. This instrument failed to get him involved emotionally and he used the technique of avoiding involvement, which in other circumstances was noted as a mechanism of his maladjustment. The Incomplete Sentence as scored fails to take account of such a mechanism. The high score on Analytical Thinking reflects his sporadic intellectual ambition but does not reflect the unevenness of day to day performance. The high Sociability score coincides with his evident drive for social leadership, but tells nothing of the ineffectual methods used to attain achievement of those ends. An examination of his Rorschach protocol shows his high potentials for creativeness, which is how he used the instrument. He sought artistic balance and originality which did not reflect his true level of adjustment. A close examination of the protocol on an individual

basis does give indication of immature emotional adjustment. His very low score on the Time Sample technique was occasioned by his excessive bids for attention in the group situation and his compulsive oral activity in which he constantly was observed with something in his mouth. His very low standard score on the Self Adjustment index mirrors extreme dissatisfaction with himself. In every area tapped he mirrors feelings of inferiority and inadequacy which may partially explain his constant seeking of attention in group situations. The ten other indices, not discussed individually, all reflect below average adjustment.

Subsequent History: The subject continues to reside at the O.S. & S.O. Home. He has been able to progress from grade to grade until he now is at the eleventh grade level. His school progress continues to be uneven. There have been several instances when he has been defiant in the classroom, refusing to meet assignments. Whenever such crises arise he tends to project blame on teachers and school authorities, claiming he does not get a fair deal. He usually winds up by stating he will try to conform to requirements but is seldom able to follow his stated intentions for any lengthy period. At other times his work is good to excellent but he never seems to feel proud of his endeavors and usually works only for immediate rewards.

He continues to have difficulty in chore situations around the institution. He has tried several trades but us-

usually gets into difficulty with his teachers or his fellows on the job. Occasionally he does an acceptable job when there is money involved which he can spend. He has never been able to budget his money- spending it immediately for whatever strikes his fancy. He seldom finishes any project which he starts. He has run away from the institution several times, but after the excitement wears off in a few days he returns on his own accord. He responds to male guidance better than to female direction. He continues, from time to time, to pick up things that belong to others and when caught accepts the necessity of replacement but does not show any genuine concern for his anti-social act. He resists counseling by either refusing to discuss his problems by not admitting that he has any problems or by crying so that it is impossible to discuss his situation. However, he does drop into the Psychologist's office and discuss sports, cars, and other matters not having individual reference.

In mechanical aptitude tests he makes low average percentile ratings, indicating a poor understanding of mechanical principles. On projective tests, he indicates wishes for exaggerated success and acclaim. He indicates pre-occupation with fantasy in which he sees himself as a great hero. However, he never recognizes the detailed obstacles that must be overcome to secure the heights that he desires.

Summary: A review of this case seems to indicate a bright boy who was early subjected to fluctuating attitudes on the part of a father. Deprived of a mother's care at a very early age he seems never to have secured enough attention and affection. He presents a history of uneven emotional development, seeking always to feed his insecurities without developing efficient techniques of dealing with his environment. In general the techniques used to assess adjustment reflect this state of affairs. The highs and lows of his profile are more understandable against a background of case history material. The low self acceptance index in combination with a below average social acceptance index would have screened this boy from the group for individual investigation.

Case #5609

Admitted to O.S. & S.O. Home
9-10-47

Date of Birth 1-16-34

Age at Time of Admission
13-8

Age as of June 1, 1950 16-5

Years of Residence as of
June 1, 1950 2-9

Family Background: This subject's immediate family were rural laborers. The family belonged to the cultural group who reside as tenant farmers and day-laborers in and around small towns. As is frequently found, and true of this family, such families have a number of children, live in sub-standard houses, inadequately clothed, and with inadequate diets.

The father of the subject was born in 1895 into a rural laboring family. He was the only son in a family with two daughters. He worked with his parents on tenant farms, quitting school in the eighth grade. He was married in 1917 before being drafted during World War I. He served overseas and was discharged in 1919, partially disabled. He worked as a farm laborer until 1942, never adequately supporting his family. In 1942 he moved his family to an industrial area where he went to work on a factory assembly line. The family was better provided for during this period than it had ever been until his death in 1945 of septicemia.

The subject's mother was born in 1899 in a small town where her father was a day-laborer. She was the oldest of three children and always considered dull and inadequate. She was taken out of school at the fifth grade level because of a physical and nervous condition, diagnosed as St. Vitus Dance. She remained at home with her parents until her marriage at the age of seventeen to the subject's father. She is described as dull, crude, and unattractive. During her husband's last illness, she is reported to have had numerous sexual relations with other men. She would frequently brag to the neighbors about these affairs while her husband was still living. She was remarried seven months after her husband's death to a man who had six children of his own. She is reported to have screamed and nagged at her children one moment and call them terms of endearment the next. There were

no regular routines in the home with children and adults eating and sleeping whenever they so desired.

The boy in this study is the sixth child in a family of eight. His oldest sister, born in 1918, left school early to be married. She had two children and was then divorced. She made her living as a waitress. Her whereabouts have not been known since 1945. The oldest brother, born in 1920, was married at nineteen after leaving school in the eighth grade. He is very hostile in regard to his mother and has little to do with the rest of the family. The next sister, born in 1924, left school when sixteen to be married. She lives with her husband and took care of the younger children for a time following her father's death. A brother, born in 1925, left school early, was married, and lives with his family in marginal financial circumstances. He grooms race horses and follows the tracks in a trailer with his family. The sister, next to the subject, was born in 1927. She follows the occupation of waitress and is very hostile toward the mother. Two younger brothers than the subject, one born in 1937 and one born in 1940, were admitted to the O. S. & S. O. Home in 1948 where they still reside.

The subject lived part time with his mother after his father's death and part time with his next older brother who made a living grooming horses. Neither took any responsibility for the subject, who wandered between the two homes and around among the neighbors in the respective homes. He paid no

attention to his mother and while never in serious trouble within the community attended school irregularly. His mother went to the juvenile court, complaining that she nor the step-father could control him. He was reported to have engaged in temper tantrums and to be hateful and disagreeable with his associates. Since the home situation did not seem to be providing adequate training and supervision, the subject was admitted to the O. S. & S. O. Home.

Summary of the Subject's Residence at the O. S. & S. O. Home

Psychological Records: Prior to Admission to the Home the subject was examined on 8-26-47 using Form L of the Revised Stanford-Binet Intelligence Scale. At the time of this examination he was 13 years and 7 months of age. He established an M. A. of 10 years and 6 months, with a resulting I. Q. of 78. He gave evidence of hyperactivity and emotional disturbance throughout the testing situation. On 9-17-47 he was examined using the Grace Arthur Point Scale of Performance. He was 13 years and 8 months of age at this time. He established an M. A. of 10 years and 4 months. Infantilism shown by impulsiveness and lack of forethought was evidenced. On 9-19-47 he was given Form M of the Revised Stanford-Binet Intelligence Scale. At the time of this examination he was 13 years and 8 months of age. He established an M. A. of 10 years, 10 months, with a resulting I. Q. of 81. Again he evidenced hyperactivity,

impulsiveness, and strong needs for reassurance.

On 9-17-47 he was given Rogers' Test of Personality Adjustment. Maladjustment was indicated in all areas with the exception of the area of personal inferiority. He mirrored particular maladjustment in social and family areas. On the T. A. T., given on 9-19-47, the subject seemed to indicate a rather extreme state of anxiety which was expressed in infantile expressions and preoccupation with details. He expressed ambivalent feelings in regard to his mother. Most of his stories dealt with tragedy, crime, and dime novel heroics. He appears to have a strong need to play the hero part to balance his felt rejection and insecurity. On 8-2-49 the California Test of Personality indicated an adjustment status at the 1 percentile level. In no area did he express adequate positive feelings.

On a battery of mechanical aptitude tests, given in 1949, the scores indicated poor ability in dealing with mechanical apparatus. Scores on all tests were at the fifth percentile level or below.

Between admission and the time of this study, the subject was referred on an average of once a month to the Psychology Department. He was never in any difficulty which is usually classed as delinquency, but was in constant difficulty with his peers in cottage situations. He was very frightened of physical contact with other boys. He would aggravate others and, when

the other boy would retaliate with fists, the subject would run and tattle. Several times other boys would taunt him to run away and would even offer to help him pack. He constantly set himself up as an authority in every line and would always attempt to top any tale told by another. He talked constantly and was unable to excel in any area to back up the talking. He was slow in physical development and was the butt of many taunts on this score. The subject, over many counseling sessions, developed considerable insight into his objectionable behavior and would lay positive plans to make himself more acceptable. However, he was seldom able to carry out those plans partially because he had already aroused such ire on the part of his peers. He continued to be infantile and to engage in solitary activities. He was still being seen frequently at the time of this study.

School Records: When the subject came to the Home he had failed the sixth grade and was due to repeat it. He had also repeated the second grade. Though testing at the 5.6 grade level on standardized achievement tests, he was placed in a slow seventh grade section because of already severe retardation. He made some progress the year he spent in a slow moving seventh. He was here, as in the cottage, a social misfit but he appeared to put forth effort and made measurable progress.

The following year after remedial help in the summer session he continued to make satisfactory achievement in a slow

moving eighth grade group. Enough so that the following year he was placed in the average section of the ninth grade where he continued to do satisfactory work. Teachers reported continuing social non-acceptance but continuously improving achievement.

Dean's Record: The subject was never in difficulty for overt delinquent acts but was constantly the source of dissension among those with whom he lived. When cottage supervisors would attempt to aid him in making more satisfactory adjustment it would place the subject still further apart from the group. Small boys would bluff him on the campus and would delight in teasing and tormenting him. There were times when he would storm and rage in unreasonable temper tantrums only to calm down and go on with every day routines. Adults pitied him and his peers heaped on the punishment cruelly. He attempted to join the Scouts but was soon dropped at his own request when the group could not tolerate him.

He ran away once to a sister who immediately brought him back. He was irresponsible but never vicious. He finally managed to learn to swim after months of gentle persuasion and encouragement. He became the campus authority on sports events, memorizing whole tables of batting averages, lists of All Americans, and sports records. Here again his over-zealous behavior made him obnoxious in the eyes of the other boys as he would not hesitate to contradict another's statement in the most positive manner. It was felt that gradually he was becoming

tolerated and temper tantrums were not as frequent as upon admission.

Medical Records: The boy has a deformity of the left elbow from an improperly set fracture which occurred at the age of three. The arm is usable but appears awkward. Eyes were 20/100 but were corrected with glasses to 20/20. He has poor distant vision. He has a 2" scar on abdomen from an early appendectomy. He had a T. & A. in 1948. He has been a slowly maturing boy, but, with the exception of a few G. I. upsets and a few minor injuries, has maintained good health.

In summarizing the subject's history prior to the present study, it appears that he was functioning at a low ability level and suffered severe school retardation. He presents a history of unstable, erratic early treatment in the family constellation. He mirrors anxiety and insecurity which reveals itself in very poor social rapport with his environment. He appears infantile in emotional development with a poorly developed physical structure. He had established inadequate techniques for dealing with his felt rejection which served to make him further rejected by his peers. The necessity of making an adjustment in a group situation imposed further stresses on an already inadequate control system.

A Discussion of the Scoring of Case #5609 on the Adjustment Indices: A review of the subject's history would lead one to conclude that this subject would indicate maladjustment

on several of the indices used to assess adjustment. The standard scores of the subject are presented in profile form in Fig. 4, page 238.

A glance at Fig. 4 confirms our expectations as all indices are well below the mean standard score. There is a definite group of extremely low scores, the lowest being the Psychologist's rating. The next three lowest scores were the ones secured on the "Companionship Choice Test," the "Guess Who", and the Emotional Stability factor of Heston Scale. Highest scores were secured on the Rorschach, by the Time Sample technique, and on the Home Satisfaction factor of the Heston Scale. The entire picture is fairly consistent with the history sketched up to the time of the study.

The extremely low rating made by the Psychologist in contrast to the medium low ratings made by other raters can perhaps be partially explained by the lack of overt delinquency tendencies present in the subject's behavior. These raters were aware of the nuisance element of the subject's behavior but tend to place more emphasis on behavior that strikes more directly as a challenge to authority. With what we know of his social non-acceptance, it is easy to reconcile his scores with the observed history. His infantilism and erratic behavior seem to be reflected in his low score on the Emotional Stability factor. His relatively high score on the Personal Relations factor can only be explained by his lack of sensitivity as to why he was non-acceptable in the eyes of his peers.

FIGURE 4

SCORING ON ADJUSTMENT INDICES BY Case #15609

The higher scores on the projective techniques may be, in the light of his subsequent history, an indication of his positive response to a more stable environment. Using the criteria of low self acceptance and low social acceptance scores, this subject would be picked out as a maladjusted individual. The overall picture, as presented in the historical sketch, seems consistent in this particular case with the scores established on all of the adjustment indices used if you consider that the entire profile falls below the mean standard score.

Subsequent History: Since these adjustment indices were applied, the subject has continued to make satisfactory school achievement. He has gradually brought most of his grades up to an average level. At eighteen he would normally be discharged, but, since he still has one year of school to complete, he made an application that he be granted an extra year which was given him so that he might complete the necessary credits for graduation. He has made a more tolerable place for himself in the group. He has learned to swim, to dance, and to play a fairly decent game of baseball. He is more able to make and carry out plans for further improvement than at the time of the testing.

He continues to irritate others with his positiveness and his attempts to monopolize the center of the stage. He continues to have infrequent flare-ups of temper and is still very afraid of physical threat even if it comes from a much smaller boy.

He continues to have difficulty carrying out responsibilities and is frequently hyperactive but there is gradual progress along these lines. When past the age of seventeen he entered puberty and is less conscious of physical difference in peer activity. He had considerable sexual conflict during the onset of pubescence, but was able to clarify those problems in an interview situation, and, while still not much beyond the stage of self absorption, he is beginning to reach out for acceptance in boy-girl group affairs.

Recent psychological data is also indicative of a reduced emotional tension with a corresponding higher functioning level. On 3-8-51 he was given the Wechsler-Bellevue Intelligence Scale, Form I. At the time he was 17 years, 2 months, of age. He established an overall I. Q. of 93. His verbal I. Q. was 96 and his performance I. Q. was 89. He was not as hyperactive as he had been on former testings and seemed to be in much better control of his emotions. These results indicated such a significant increase over his former functioning level that he was rechecked on 3-12-51 with Form L of the Revised Stanford-Binet Scale. With a chronological age of 17-2 he established an M. A. of 14 years and 2 months, with a resulting I. Q. of 94, which was felt to corroborate the Wechsler results.

Summary: The subject presented emotional maladjustment and very poor personal efficiency. His poor adjustment was reflected on all indices after over two years of a more consistent environmental experience. In this particular case, his extreme

anxieties and insecurities were felt to have resulted in exaggerated bids for acceptance from the group. In an environment where group acceptance assumes even more importance than in a stable home situation, the subject was able to respond to individual counseling and to environmental pressures. The adjustment profile presented seemed to adequately present the picture of the moment, but did not lead to prediction of the future course of adjustment. The subject is still felt to be infantile in many respects and to be unable to fully meet the responsibilities of independent living, but there has been marked improvement in adjustment status.

Case #5775

Admitted to O.S. & S.O.
Home 3-18-38

Date of Birth 1-29-32

Age at Time of Admission
6-2

Age as of June 1, 1950 18-4

Years of Residence as of
June 1, 1950 12-2

Family Background: This subject came from a family with a background of irregular employment and life in low rent districts of a large Ohio city. Members of the family were involved in drunkenness, extortion, theft, and prostitution. Only a minority of the family, whose histories are known, could be considered as living without major

conflict with society.

The subject's father, born in 1901, left school while still in the intermediate grades and was irregularly employed thereafter. He served in World War I and was discharged in 1919. He married the subject's mother in 1920. He continued to be employed irregularly at unskilled jobs during his married life. He had a court record for drunkenness and neglect of his family. He died in 1932, eleven months after the subject's birth, following a drunken brawl caused by drinking poison liquor.

The subject's mother was born in 1905 and completed the sixth grade. She began work at 12 years of age in the market stands. She was married in 1920 at the age of fifteen. She was in difficulty frequently with the court for neglect of her children, who were described as dirty and half clothed. She spent six months in the workhouse on a charge of adultery. She drank heavily and was known to be promiscuous sexually. After her husband's death, she was picked up by police on a charge of prostitution. She re-married shortly after her husband's death and was divorced in 1935. Her younger children had been

placed, in 1933, in the Jewish Orphans Home. They were replaced in 1935 in a large County Children's Home. The mother never took much interest in her children, visiting them only once in 1936 after their placement. She has continued to take little interest in her children over the years. She has made her living by doing unskilled housework, factory work, and by serving as a housekeeper for numerous widowers. At one time she and her sister were implicated in an extortion case which supposedly netted them a rather large sum of money. The last time she was contacted, in 1951, she continued to over-dress and behave in a loud, vulgar manner. She owns and operates several tenements in low rent neighborhoods.

The subject is the youngest of seven children, all of whom were removed to an orphanage in 1933. The oldest sister, born in 1921, was placed in three orphanages where she was a constant source of difficulty. At the age of seventeen, she went to work in a wage home and shortly afterward ran off to be married. Her marriage did not last long and she has since done factory work to support herself and child. She is known as a good worker. The next sister, born in

1923, was also placed in three different orphanages. She was very unhappy in the last placement and finally ran off to live with her older sister. She has been married, divorced, and re-married to the same individual. They now live in a newer part of the city and things seem to be working out better for her and her family. A brother, born in 1925, caused endless difficulty in the County Children's Home. He stole and constantly ran away. He was finally placed in a boarding home where he was permitted to go to work at the age of sixteen. He now holds a responsible job and has seemingly become a good father and citizen. Another brother, born in 1927, went through placement in the same three orphanages and presented problems of stealing and running away. He was crippled following an undiagnosed illness. After poor adjustment he was finally placed by the court in the third institution. At sixteen he began working at a series of low skilled jobs and continues to float from job to job. The next brother was born in 1930. He, too, was a severe behavior problem, stealing, bullying, forcing younger boys into sexual acts, and running away. He was finally discharged to the Court from the O.S. & S.O. Home. He made little or no response to an educational program. Eventually he enlisted in the Army where he subsequently got into difficulty as an habitual alcoholic and A.W.O.L. He is receiving correctional treatment within the Army at the present time. The youngest sister, born in 1931, was diagnosed as too low

mentally to profit from an educational program and was discharged to the second oldest sister from the O.S. & S.O. Home. She received some training in classes for slow learners and eventually was able to help support herself by baby-sitting and working in the kitchens of restaurants.

The subject was scarcely a year old when placed in his first institution. At the age of three, he was placed with his siblings in the County Children's Home. Because the children were the children of a veteran, they were eligible for placement at the O.S. & S.O. Home. During the years of difficulty with the older children, the subject continued to reside in the O.S. & S.O. Home. During this period of institutionalization, only the paternal grandmother took any interest in visiting the children or providing them with short vacations. The mother visited only infrequently in all the years the subject resided at the Home. The older siblings, after leaving the Home, seldom wrote or visited the subject.

Summary of the Subject's Residence at the O.S. & S.O. Home

Psychological Records: The subject was first examined on 1-26-38 by means of Form L of the Revised Stanford Binet Intelligence Scale. He was 6 years and 0 months of age at the time. He established an M.A. of 4 years and 3 months, with a resulting I.Q. of 71. At the time he was diagnosed as of inferior mental ability but not feeble minded. He was

noted to be inferior in his social and emotional reactions. He was at this time as well developed physically as the average boy of eight. He was again examined on 1-17-39 with Form M of the Revised Stanford-Binet Intelligence Scale. At the time of this examination, he was 7 years and 0 months of age. He established an M.A. of 5 years, 10 months, with a resulting I.Q. of 83. He was described as demanding activity every second and to have extreme difficulty in focusing attention on the task at hand. It was noted that he was motivated by success but that conscious failure resulted in active defiance. He was retested on 4-24-47 with the Wechsler-Bellevue Intelligence Scale. At this time he was 15 years and 3 months of age. He established an overall I.Q. of 83. This was the result of a Verbal I.Q. of 78 and a Performance I.Q. of 93. He was noted at this time to have exaggerated drives for success and to react defiantly to failure. He was again tested on 3-8-50 with Form L of the Revised Stanford-Binet Intelligence Scale. At this time he was 18 years and 1 month of age. He established an M.A. of 14 years and 0 months, with a resulting I.Q. of 93. He was still found to be well motivated by success. His verbal facility and reasoning were considerably weaker than visual perception and non-verbal elements.

The subject took the California Test of Personality on 1-12-44 at the age of 12 years. His overall adjustment status was at the 35th percentile level. There was consid-

erable discrepancy between his expressed feelings of personal worth at the 65th percentile level and his other feelings in the self adjustment area, ranging from 10th to 35th percentile levels. He evidenced feelings of poor school relations, poor community relations, and low social standards with accompanying anti-social tendencies. On 3-20-47 he again responded to the California Test of Personality when 15 years and 3 months of age. His overall adjustment level at this time was at the 10th percentile mark. Withdrawal tendencies were reflected. He showed negative feelings of belonging and self reliance. Anti-social tendencies and poor school relations were in conflict with his social standards and knowledge of social skills.

On mechanical aptitude tests, given through the years, he showed uneven abilities. He showed good ability in the spatial relationship tests, but poor understanding of mechanical principles and tool usage.

From 1946 until the Spring of 1951 the Psychology Department was in direct contact with the subject on an average of twice weekly formal interview sessions with many more informal contacts. He was referred by other departments for defiant behavior, continuous disobedience of institutional regulations, stealing, runaway behavior, and moodiness. Prior to 1946 he had been referred, according to the records, as early as the age of six for exhibitionism and attempted

fellatio with cottage mates. Subsequently, he was referred as a school problem where he early disrupted the group and presented a problem in learning, stealing, and running away.

Recognizing a boy who was starved for affection, with anti-social habits, and beginning severe behavior aberrations, the writer instituted therapy with the subject when he came to the Home in 1946. To cope with the many problems presented by the subject within the institutional setting and maintain an acceptance of him as an individual was frequently a frustrating experience for the therapist. However, his drive for acceptance and hunger for recognition and affection kept driving him into sharing more of his problems and slow progress was made in reducing some of his needs for anti-social reactions which enabled him to enter into more satisfactory relationships with others and keep out of major difficulties.

School Records: The subject was placed in the kindergarten when he entered the O.S. & O.S. Home as it was felt that he was not then ready for first grade work. In the 1939-1940 school year he was finally placed at the first grade level because of physical maturity. He made slow progress. In the second grade he continued to be demanding of attention and to be a poor sport. In the third, fourth, and fifth grades, there was noted improvement in achievement but continued striving for the center of attention, and, when given special attention, he was prone to over-reach to

it and take advantage of the person giving it. In the sixth grade he became increasingly insolent and tended to discount the efforts of classmates.

During Junior High School he maintained average progress in a slow moving section. If given a feeling of success, he was found to work very hard, but he could not take failure or criticism without becoming sullen and defiant. During this period he was noted to be moody with periods of elation and conformance to rules, followed by periods of depression and sulking where he flagrantly broke all rules. He chose agriculture as his vocation and became quite interested in a number of farm projects. He continued to make average progress in the 10th grade. He began to take an active part in athletics and dramatics where he gained some recognition.

In the summer of 1949 he was placed out of the Home on a dairy farm for work experience. He was irresponsible, but proved to be a good worker. In the Fall of 1949 he was placed on another farm near a neighboring city. The cultural background of the family was high. The subject was expected to help with chores and continue going to High School in the nearby city school. He made adequate school progress and was quite popular with certain groups in the school. He played football on the first team. He had difficulty meeting the standards of the family with whom he lived and was intensely jealous of the two small children in the family. He returned to the Home the second semester and continued

his eleventh grade work.

Dean's Record: The records report incidents of extreme deviant behavior reaching back to his admission to the Home. He was an early exhibitionist, being proud of his large genitalia. He masturbated openly and forced other boys into a variety of sexual practices. Instances of homosexual activity continued to occur infrequently all through the years. He had an early record of stealing, which continued with more infrequent instances through the years. He was often defiant to cottage personnel but, because of the times when he reached out for affection and because of his seemingly unlimited enthusiasm, most crises could be weathered. He never seemed to hold grudges and was frequently, in his better moods, going out of his way to help a supervisor or younger boy.

On several occasions he ran away -- usually after he had stolen something. He was generally apprehended within a few days and returned to the Home. On several of these occasions he had to spend a night in jail until someone could return him.

He was a hard worker in the cottage and, if given a little praise, he could accomplish more than most boys. He was always loud and boisterous. Other boys accepted him but oftentimes made fun of his clowning and open expression of affection. If he liked someone he expressed it through physical contact which was not of the gentle variety.

Medical Records: He was always well above average for his height and age. He was healthy and well developed. After being hospitalized for chicken pox and measles shortly after admission to the Home, he needed very little medical attention. His most common complaints were infections on fingers and feet and numerous furuncles. He continued to need instruction in personal hygiene and was never careful about personal cleanliness.

In looking back over this subject's history we find that he spent his life from early infancy in child caring institutions. At an early age he seemed to reflect impoverished experiences and inadequate emotional development in a very low ability level. Responding to individual programming and therapy, designed to meet some of his needs, he was able to reach low average functioning levels. His history shows a continued exaggerated drive for recognition, taking the form of anti-social behavior. His unanswered needs for affection in a setting where early identification with parents was impossible, seem to have given rise to a disturbed emotional life. Early exposure to aberrant sexual practices, in addition to his infantile emotional level and precocious physical development, seem to have led him into homosexual practices. His drives for success and his physical prowess did enable him to make some adjustments that negated complete rejection.

FIGURE 5

SCORING ON ADJUSTMENT INDICES BY # 5775

A Discussion of the Scoring of Case #5775 on the Adjustment Indices. With the history reviewed thus far of this subject we might expect considerable maladjustment to be indicated on the various indices made for this study. Figure 5, page 252, presents a profile of the standard scores made by this subject.

A glance at Figure 5 shows that eight of the indices lie above the mean standard score while an equal number lie below the mean standard score. Five of the indices, lying above the mean standard score, are factors from the Heston Personal Adjustment Inventory -- Analytical Thinking, Confidence, Sociability, Personal Relations, and Emotional Stability. Two of these are the indices established by the sociometric techniques - "Guess Who" and "Companionship Choice." The other index showing favorable adjustment is the Rorschach. Below the mean lie both indices derived from the California Test of Personality, with the self adjustment score definitely lower than the social adjustment score. The Home Satisfaction factor of the Heston scale lies below the mean. All three ratings by adults lie below the mean, with the rating of the Psychologist lying well below the other two. Both the Incomplete Sentence index and the Time Sample rating are below the mean.

Here is a case where disagreement among the various indices is apparent. When it is sought to compare the case

history with the various scores, one is in immediate difficulty but certain points do stand out. It is noted that high scores on the sociometric techniques in this particular case might be expected as he did receive a certain amount of social acceptance even though there were other aspects of his relationship with his environment which were out of adjustment. His high score on the Sociability factor of the Heston scale might be a reflection of his drive for recognition and leadership, which was observably greater than that of the average boy in the population. His drive for academic success might be reflected in his better than average score on the Analytical Thinking factor. The Confidence, Personal Relations, and the Emotional Stability factors on the Heston, which were just above the mean standard score, pose a problem but perhaps we might attribute these scores to a lack of insight on the subject's part as he was in the process of therapy and known to project many of his difficulties upon the environment. There is, of course, the possibility brought out before that this instrument is inadequate when appraising those with lower mental ability. The high score on the Rorschach would seem to indicate adequate adjustment. An examination of the protocol indicates inner balance on a fairly mature level. There are few instances where he evaded reality. He was normally productive and seemed in good contact with his fellows. Here, because his problems were expressed openly and overtly, this instru-

ment might be less revealing than if he had been beset with unexpressed conflicts and repressions.

The low score achieved on the Psychologist's rating was probably a reflection of the many intimate details known as a result of several years therapy and may be depressed below his actual level. His low index of Self Adjustment indicates that he still is not satisfied with his gains. Home Satisfaction is low and probably reflects a mixture of dissatisfaction after long periods of institutional residence and a realization of family rejection which was beginning to be verbalized on an insightful level at this time. The ratings of teachers, supervisors, and deans were undoubtedly colored by the growth the boy had made at this point in comparison with earlier behavior. The Incomplete Sentence mirrored much of his conflict in the family areas. The Time Sample was low as a result of oral preoccupation and striving for group dominance.

The inconsistency of scores on adjustment indices in this case seem to reflect the unevenness of progress toward a relatively higher level of adjustment in a case where fairly successful therapy was occurring. It also is a rather clearcut illustration of how placing dependency on any one technique or score in dealing with adjustment can be very misleading. Finally, it appears that this case illustrates the necessity of knowing case history background in a detailed fashion if one is to begin to interpret test-

ing results of this nature. It is also of interest that none of these tests would give strong clues to the subject's unacceptable sexual adjustment with the exception of the Rorschach protocol which did contain several responses which would indicate a suspicion of oral aggressive tendencies.

Subsequent History: The subject asked for an extra year to finish his High School education in the Spring of 1950. This was granted him. He returned to the dairy farm where he had worked the summer before and held his job satisfactorily. He developed quite an emotional attachment to the owner of the dairy and was quite upset when the latter's wife did not treat him as a member of the family. He returned to school and completed his credits for graduation. He continued to flare up out of school and there were several instances of stealing. However, in each case he would come and confess what he had done and would then set about making good his theft. He took an active part in athletics, social affairs, and dramatics. His drive to complete his education seemed to stem from a desire to show up his family by being the first to graduate from high school. On the night of his graduation he waited until the last moment for some member of his family to appear. They disappointed him by not being there. He expressed considerable bitterness over this disappointment.

He returned to the dairy farm to work following graduation. The owner thought it time "to begin treating the subject like any other worker. Heretofore he had been helping

him budget his money and had permitted him to live as a member of the family. The subject, in the meantime, had purchased a used car and began to need more money than he was making. He had also been moved to a defense house near the dairy which he interpreted as rejection. By fall he was rather bitter in regard to his job and one morning made a small collection on a bill, pocketed the money, and drove home to his sister. The car was not paid for by the subject. The owner of the dairy, who had paid for the car and was taking it out of the subject's wages, located the boy who returned the car and squared himself financially with the dairyman. Shortly after this episode the subject was drafted and placed in the Marines. He continues to make marginal adjustment but has not at this time become involved in serious trouble. He continues to need a great deal of support and is still closely tied to the Home and its personnel. He has begun to make some heterosexual advances but continues activity with other males. He has never learned to handle money responsibly and continues to have spells of depression.

Summary: The adjustment indices were not consistent in their appraisal of this case. When the historical background is considered there are some logical reasons which might account for this inconsistency. This subject who was starved for affection and met only diluted personal relationships from infancy nevertheless made progress over the years that

in some respects is rather remarkable. It is still quite possible for this subject to come into severe conflict with society which may throw him back on early non-adjustive behavior patterns. The very inconsistency of the rating of the various adjustment appraising techniques seems to mirror the uncertainties in the subject's behavior. This case tends to point out the need for as complete a knowledge of the subject as possible in order to utilize test results.

If the self acceptance score and the social acceptance score had been used as screening devices in this case, it would have been necessary to have examined the case more carefully because of the differing results. An examination of the case would likely have thrown light on the difficulties present. If such cases of striking disagreement between self acceptance and social acceptance are investigated, the usefulness of these two scores as screening devices can be recommended.

Conclusions

Five cases have been presented with an attempt to illustrate how the established indices of adjustment compare with environmental data. In four of the cases we find an overall consistency between environmental data and test scores. In the fifth case we find scores between the various adjustment measures disagreeing rather definitely. In this case we also find the same disagreement between phases of behavior.

When the facts of behavior were compared with the adjustment indices there was a fairly close agreement between indices and overt behavior.

A study of these five cases seems to confirm the findings brought out in studying the group data. Any one score reputed to assess adjustment status is inadequate when working with either groups or individuals. The cases lend support to the suggestion that a score indicating self acceptance and one indicating social acceptance are likely to be profitable as screening techniques when seeking to point out those individuals in a group who seem to be having the most difficulty meeting environmental pressures. The data brought together in these case studies emphasize the use of detailed case history material to clarify scores made through the use of various appraisal techniques.

It has been demonstrated in these five cases that present assessment measures, while certainly imperfect, are useful if we use enough of them. It has been suggested that treating adjustment as a global concept may be less fruitful than an approach that may be termed operational. These cases illustrate the possibility for setting up definite, commonly experienced environmental situations which can be defined in specific terms so that we may say given the following set of circumstances in an individual case we observe the ensuing behavior. This subsequent behavior might also be defined specifically and rated on a well defined scale as adjustive or non-adjustive. That is, if we find it important to cate-

gorize behavior in such specific terms. It begins to appear that at present when working with the concept of adjustment in an individual case the worker must bear in mind as many individual facts, gleaned from observation and testing, as he can comfortably manipulate and then set about teaching the individual to set reasonable immediate goals which are in line with a reasonable goal developed by the therapist who has considered carefully what might be an appropriate projected goal.

One cannot make sweeping generalizations from the five cases considered. However, the contribution of this chapter seems to be that of pointing out the usefulness of present techniques for diagnostic and therapeutic purposes when used against a background of historical data. For screening purposes they can point out where the time should be spent in digging out historical data and with which individuals. None of the indices used independently, which have been applied in this study, appear useful in the role of independent criteria of adjustment. They do appear to have limited usefulness when used as a group or in conjunction with environmental data.

CHAPTER VII

SUMMARY OF THE STUDY

Summary of the Objectives

The present study grew from the felt inadequacies of currently used criteria for adjustment. Too frequently it was noted in reviewing psychological literature dealing with diagnostic and therapeutic efforts that groups and individuals were labeled relatively well adjusted or relatively maladjusted on the basis of a single or, at the best, a few indices purporting to assess adjustment status. In many instances, efficacy of therapeutic attempts was evaluated on the basis of changes in one or two of these same adjustment indices. Results of validation studies of various adjustment indices over the years have pointed to the weaknesses of using these indices as independent criteria. The writer in his work had often questioned just how much confidence could be placed in the various techniques available for assessing adjustment and yet was forced by the demands of day to day pressures to utilize such indices in making appraisals of adjustment status. In order to clarify this situation it was determined to examine in detail the relationships among results obtained by using

many of the commonly accepted techniques for assessing adjustment, then carefully apply them to a known population and compare the results.

It became the first objective of the study to select representative approaches purporting to measure adjustment and then to apply those approaches carefully to a population observed to consist of individuals who varied in their adjustment status. After applying these techniques it was necessary to subject the results to a correlational analysis in order to establish some logic for agreement or disagreement found. As longer range goals, it was hoped to shed some light upon what was necessary in order to improve such existing techniques. It was further hoped that certain issues in regard to the concept of adjustment as frequently used might be raised, leading to clearer delineations within which was felt to be a legitimate area of personality study.

Summary of the Approach

Nature of Adjustment. In a review of the literature dealing with the concept of adjustment, it was found that representative writers, while using different terminology, were in essential agreement as to the nature of adjustment. Synthesis of agreeing statements points to a description of adjustment as a process that covers the individual life span operating within a complex environmental field. The process appears to be goal directed behavior instituted by a need which may be

aroused at any level within a hierarchy of needs that may stem from basic physiological urges all the way through to the most complicated psychological symbolizations. The process of adjustment is propelled in a complex situation when this goal directed behavior meets a thwarting circumstance which serves to heighten tensions so that varied responses can occur. One, or a combination of these varied responses, eventually leads to a solution response which enables attainment of a transitory goal which results in reduction of that particular tension. The very process itself of attaining a transitory goal oftentimes establishes the circumstances in a complex environmental field that perpetuates the process.

During the persistent process of establishing and re-establishing a semblance of individual adjustment within an individually unique environmental field, measurements may be made as to the efficacy of the process. It is here that agreement was found in the writings of the experts in the field as to the characteristics or facets of those adjustments termed good. Seven facets of good adjustment were delineated. There was no implication that these facets were independent or mutually exclusive. Rather it was found they were descriptive terms which frequently coexisted and complemented each other in the behavior of individuals termed well adjusted. These seven facets were found to be recognized by a majority of

writers in the field and are briefly recounted at this point.

(1) Maintaining an integrated personality. This aspect of good adjustment dealt with the coordination of one's needs and goal-seeking behavior into smoothly functioning interaction with the environment. (2) Conforming to social demands. Complimenting the first facet, this characteristic emphasizes harmony without giving up individual spontaneity with the standards of one's cultural group. (3) Adapting to reality conditions. The emphasis here is upon one's ability to expose himself to present hardship conditions for gains toward long range goals. There is also expected a reasonable tolerance to frustration. (4) Maintaining consistency. This is a qualitative facet which makes for predictability in behavior and allows hopes for assessment of adjustment. (5) Maturing with age. This is the facet which makes allowance for maturation and development in the individual with concomitant growth of more complex adjustment processes. It permits the learning of more complex processes with the accruing of profit from experience through the medium of increasing contacts with the environment. (6) Maintaining an optimal emotional tone. In the face of emotionally loaded situations the well adjusted person is neither constricted in emotional involvement nor thrown by his emotional reactions. (7) Contributing optimally to society through an increasing efficiency. This facet summarizes the result of well adjusted behavior that insures

against an interpretation of behavior that is not purposive beyond self interest.

In addition to describing the adjustment concept as a process and delineating certain agreed upon facets of this process, recognition was made of the various common mechanisms that are used in carrying out this process. It was found that while there were certain agreed upon mechanisms of adjustment (i.e. withdrawal, projection, sublimation, introjection, direct attack, etc.) there was far less agreement as to what degree of usage of any mechanism constituted enough to cause a shift along the adjustment continuum. It was concluded that each mechanism as it revealed itself must be judged in the light of the total complex environmental picture rather than automatically rating it toward either the non-adjustive or adjustive end of the continuum.

The concept of adjustment was shown to be a complex one. Since it is a perpetual process and may exhibit itself at any point along an increasingly complicated hierarchy where symbolization plays an increasingly important part, and because of the necessity to take into consideration the many complex forces of the environmental field, the inherent difficulties of measurement were noted. Despite these difficulties, attempts continue to be made to assess adjustment status. It was felt that such attempts were legitimate and merited more complete evaluation.

Selection of Population. Since the study was to examine relationships between techniques designed to assess adjustment status, a clearly defined population was necessary. As the writer was acting as resident psychologist at the Ohio Soldiers' and Sailors' Orphans' Home at the time, it was felt that within the larger population a suitable one for study could be defined. The best known population consisted of all of the white boys who had reached their fourteenth birthday as of April 1, 1950, who had been in residence at least six months, and who were not up for immediate discharge. The chosen population consisted of sixty-six adolescent boys who were observed to vary in their adjustive status. This group was found to be within the average ability range but somewhat retarded scholastically by school placement standards. They would have rated low on a family stability scale.

The cultural background was somewhat below that usually considered middle class. The average boy in the group had lived for approximately six years in the orphanage. While the backgrounds and living situation made for a somewhat atypical group, the immediate environmental field was similar for each boy and members of the group were available for close study and follow-up. Since the study emphasized agreement or disagreement between techniques purporting to measure adjustment, this chosen population lent itself rather uniquely to the problem.

Selection of Instruments. After developing a concept of adjustment and selecting an appropriate population, it was necessary to categorize existing techniques of assessing adjustment and select representative measures within those techniques. It was found that a categorization scheme of five major types would encompass the existing ways of assessing adjustment status. The major types consisted of: (1) Questionnaires and inventories; (2) Ratings by adult judges; (3) Ratings by peers; (4) Adjustment indices secured through projective techniques, and (5) Systematized direct observation. Representative techniques were selected under each major type in accordance with established criteria that took into account the suitability to the group, the straightforwardness of scoring, differences of approach within the major type, and practicability of application. As a result The California Test of Personality was selected under Type (1); it provided two indices of adjustment; self adjustment and social adjustment. Also under type (1) and representing an inventory constructed by factor analysis was the Heston Personal Adjustment Inventory. This inventory gave six indices of adjustment: (a) Analytical Thinking, (b) Sociability, (c) Emotional Stability, (d) Confidence, (e) Personal Relations and (f) Home Satisfaction. To represent type (2), Ratings by Adult Judges, an average global rating was secured using the independent ratings of two teachers and one supervisor. These

global ratings were made after considering standing on each of the seven facets of the adjustment process. Another average adult rating was secured by having the two men in the Dean of Boys' office rate each boy using the Haggerty-Olson-Wickman Behavior Rating, Schedule B. A third adult rating was secured by having the Psychologist make a global rating of each boy's adjustment on the basis of case history material, close acquaintanceship, and material gained from a semi-structured interview. Type (3) which consisted of peer ratings secured through the use of sociometric techniques was represented by a "Guess Who" rating based upon a cluster analysis of characteristics approved and disapproved by adolescents. A "Companionship Choice" test was also used to secure a comparable sociometric rating. In type (4) it was necessary to choose projective techniques which purported to give adjustment indices. Munroe's Rorschach Check List was used as one of these techniques. The high school form of Rotter's Incomplete Sentence Test was used to establish the other representative index within this type. Type (5) was exemplified by using a Modified Time Sample technique to gain an index based upon systematized direct observation of behavior. Each boy was observed ten pre-scheduled five-minute periods: four classroom activities, four vocational or work-training periods and two recreational periods. In addition to these sixteen indices of adjustment, it was felt necessary to establish measurements of three extraneous variables which

were unknown in their effect upon the adjustment indices. These three variables were: (2) chronological age, (b) mental age, and (c) months of residence in the institution.

Summarizing the Presentation of Data

After selecting the techniques to be used, these techniques were applied with the utmost care taken in measuring and scoring to insure maximum validity. Raw scores were transmuted so that relatively high scores indicated relatively good adjustment, while low scores indicated relatively poor adjustment. The sixteen resulting arrays were inspected for normalcy of distribution and other characteristics. Reliability studies were made with the data where indicated. These characteristics were reported in detail in Table 5, page 132. One of the outstanding characteristics of the group which deserves emphasis was that on several measures, The California Test of Personality, The Heston Personal Adjustment Inventory, The Haggerty-Olson-Wickman Behavior Rating, Schedule B, and the Munroe Rorschach Check List, the mean score of this group was considerably below the mean score of the standardization group, the implication being that in general the group whose scores were distributed normally gave more indication of being maladjusted on these several measures than the groups chosen for standardization of the technique. It was also pointed out that the inter-rater reliability correlation coefficient of the average teacher-supervisor rating of global adjustment was too

low to assure confidence in this particular index. It was also pointed out that the index secured through the use of the Modified Time Sample technique distributed the population over a too narrow range of scores.

Intercorrelations were secured between each of the sixteen indices of adjustment as well as between each of these sixteen indices and the three extraneous variables. Since the effects of these three variables were unknown, it was first necessary to compare their relationships with each of the adjustment indices. The results of this comparison were summarized in detail in Table 6, page 136. In general it was found that these variables were not related at a significant level to any of adjustment indices. However, there were a few instances of significant relationship which were examined. It was found that The Haggerty-Olson-Wickman Behavior Rating, Schedule B was significantly related to M. A. which was not surprising since this technique devotes one whole area to scales concerning ability status. The "Guess Who" was found to be significantly related to months in residence which seemed to indicate some trend toward adopting the characteristics admired by the group when ever the individual was able as he experienced continued group living. The Modified Time **Sample** was found to be significantly related to both C. A. and months in residence. This situation seemed to be occasioned at least partially by the tendency to become

more covert in the overt behavior observable with age. Since the Modified Time Sample was judged to be a rather poor index of adjustment, little importance was attributed to these relationships.

The one hundred and twenty intercorrelations presented in Table 7, page 142, resulting from comparing each of the sixteen arrays with each other, were next examined for significance and other characteristics. In general, a positive but low correlation was found between the various arrays of adjustment indices. The median intercorrelation, was .228. This is sufficient to indicate just a thread of relationship between common approaches purporting to assess adjustment. The results were insufficient to support strongly a global concept of adjustment that is directly communicable in terms of results secured by any one technique being used to predict accurately in terms of results of other techniques.

A closer examination revealed that forty-one of the one hundred and twenty intercorrelations were significant at the .01 per cent level or above. In addition, seventeen more of these intercorrelations were significant at the 05 per cent level. These facts revealed that a variety of the techniques were tapping related processes and lend support to the logic which argues for the existence of a global concept of adjustment. However, the lowness of these relationships and the infrequency of their occurrence detracts from the usefulness of that global concept in that it lacks general communicability.

In fact, when speaking of the adjustment of a specific group or of a specific individual, it is not nearly as clear what is meant as when one speaks of the general ability level of the group or of the individual.

It was apparent from the data that certain factors were present which could account for some of the inter-relationships found. These factors seemed to influence the amount of relationship found above and beyond the matter of "adjustment." Basically, there was considerable more relationship within and between three of the major groupings. Questionnaires and inventories, ratings by adults, and ratings by peers are all established by some form of personal report which could plausibly account for some of the relationship found. It was also found that relationships between techniques within each of these types were more frequent and at a higher level than between the various types. Another factor accounting for some of the relationship found appeared as the overlap between self adjustment and social adjustment. While approached from different angles these two concepts were not easily definable and are certainly inextricably bound together in any particular individual as he functions in his environmental field.

A study of the data brought out other factors which could logically account for some of the lack of relationship found. One of these was the lack of relationship between the two projective techniques purporting to establish an adjustment

index, and further the lack of relationship found when these indices were compared with the indices established by other techniques. These projective methods at their present state of refinement did not seem, with this particular population, to establish a comparable numerical index but were valuable in an individual interpretation in the matter of aiding in constructing hypotheses in regard to individual behavior dynamics. Another factor accounting for lack of relationship was the inclusion of the Modified Time Sample which was related at the 01 percent level to only one of the other fifteen indices. Since the range of distribution on this population was so narrow for this technique, this may account for some of the lack of relationship found. Another finding possibly contributing to the lack of relationship found, was the low correlations established between similarly labeled techniques, such as social adjustment and sociability. This fact pointed toward a need in the adjustment assessing area for a more specific definition of terms if communicability is to be improved.

After examining the data in terms of the group, it was necessary to include some examples at the individual level to complete the picture in terms of agreement or disagreement between the various measures in individual cases. It was felt that such an inclusion might point the way toward more intelligent use of the techniques presently available. Five cases were examined in accordance with certain criteria. The data suggested that low scores of self adjustment, as secured through the questionnaire, and low scores of social adjustment,

secured by peer rating, would screen out those individuals evidencing most severe conflict. It was also necessary to use individuals about whom rather complete case history material was known, both prior to the study and for a period of two years following the initial measurement. Hence, two cases were picked who evidenced high quartile scores in self adjustment and social adjustment and two cases picked where low scores on these measures were evidenced. One case was picked where there was disagreement between these scores. All scores on all indices were transmuted to comparable standard scores. These scores were then examined in a detailed fashion with extensive case history material as a background.

The study of these five cases emphasized the fact that no one score could be depended upon to adequately assess adjustment in an individual case. Even in cases as clear cut as several of these were, where all the knowledge available pointed to either adequate adjustment or rather severe maladjustment, various techniques might point in the other direction.

Individual study brought out the usefulness of the suggested self adjustment score and the social adjustment score as screening devices when it was necessary to discover quickly those maladjusted individuals with whom more intensive work could be planned. It was further illustrated that where

there was an evident discrepancy between an individual's scores in these areas that these cases would merit closer investigation.

The study of individual cases emphasized the need to use present techniques for assessing adjustment in conjunction with all of the case history material available, on each individual. The data indicated that even though none of the indices used were felt to be adequate as an independent criterion of adjustment, each had its usefulness when used with other indices against a background of environmental material. The chief uses of these indices appeared to be in providing hypotheses in regard to behavior dynamics and also in adding support to hypotheses made on the basis of past observances. In no instance was it discovered that any of these indices could be used alone as a basis for prognosis as to future adjustment status. However, a profile, such as was established through the use of many of these measures, was felt to be a useful indicator of future adjustment status.

Suggestions for Present Use and Future Development

For the present, at least, the data secured in this study seem to indicate that techniques designed to appraise adjustment status are imperfect and have only threads of relationship with each other. They are not entirely worthless, however, as they can be used as screening devices preparatory to more intensive study of groups and individuals. They are also useful to help form hypotheses and to furnish evidence of

support or denial for hypotheses already formed in studying particular groups or individuals. The fact that several measures pointed to a lower adjustment level of this group of adolescent orphanage residents, when compared to standardization groups, is in line with logical expectations, considering the traumatic psychological events known to have occurred in most of these boys' lives.

The current practice of reporting adjustment status in the terms of one index, derived by one technique, is inadequate according to the findings of this study. A better practice at the present time would be to use many indices rather than one or two. More confidence could be placed in studies where the results of several indices are included to indicate the direction along the adjustment continuum.

The study has pointed out the need for clearer definitions when dealing with concepts of adjustment. Present usage of terminology in this area leaves much to be desired. It appears that there is a need to speak in concrete terms when discussing the adjustment of groups or individuals. In describing a subject's adjustment, it would seem necessary to point out in behavior terms the evidence for adjustment or maladjustment. This makes it necessary to speak in specific terms rather than making general statements in regard to global adjustment.

Before current techniques can be improved it seems necessary to define in operational terms certain common adjustment situations for specified populations. If, when these

situations are determined, a means of measurement can be found, then these techniques can be applied to representative populations. The results established can be used through statistical analysis to delineate factors of adjustment that should meet the requirements of those seeking to establish more clearly defined criteria.

With the improvement of techniques, rather than the addition of more and more examples of specific techniques, there should come progress in communicability of results. If such a time comes, when techniques can be improved, it will be necessary to improve the training of those using the techniques. In this study those with the least training in psychological fields were least in agreement among themselves in their judgments.

It was hoped as the study was planned to shed some light on what areas might profitably be examined for higher level adjustment skills. Little progress was made in this effort but there was evidence that measures designed to increase feelings of self acceptance would be profitable. Likewise, in the area of social acceptance, at least with this age group, any steps which could be taken to improve the acceptance of one by his peers seemed related to growth toward better adjustment. These trends strengthen the approach of counselors and therapists who have sought to help the subject gain clearer insight in these areas. Perhaps a detailed inspection of those who evidence high performance in either of these areas might result in outlining certain superior practices which could be

taught those seeking to operate at a more optimum level of adjustment.

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APPENDIX

CALIFORNIA TEST OF PERSONALITY—SECONDARY, FORM A
A PROFILE OF PERSONAL AND SOCIAL ADJUSTMENT

Devised by Ernest W. Tiegs, Willis W. Clark, and Louis P. Thorpe

Name.....Grade.....Sex: Male—Female

School.....Age.....Birthday.....

Teacher.....Date.....

COMPONENTS	Pos- si- ble Score	Stu- dent's Score	Per- cent- ile Rank	PERCENTILE (Chart student's percentile rank here)
1. SF. ADJ.	90	_____	_____	1 10 20 30 40 50 60 70 80 90 99
A. S.-rel.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
B. Per. Wth.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
C. Per. Fdm.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
D. Belg.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
E. Wd. Td. (Freedom from)	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
F. Ne. S. (Freedom from)	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
2. SOC. ADJ.	90	_____	_____	1 10 20 30 40 50 60 70 80 90 99
A. Soc. St.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
B. Soc. Sk.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
C. A-s. Td. (Freedom from)	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
D. Fm. Rel.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
E. Sc. Rel.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
F. Cm. Rel.	15	_____	_____	1 10 20 30 40 50 60 70 80 90 99
TOTAL ADJ.	180	_____	_____	1 10 20 30 40 50 60 70 80 90 99 PERCENTILE

SECTION 1 B

16. Are you usually considered brave or courageous? YES NO
17. Do you feel that you are not very good at handling money? YES NO
18. Do people seem to think that you are dependable? YES NO
19. Do you feel that people often treat you rather badly? YES NO
20. Are you often invited to mixed social parties? YES NO
21. Do most of your friends and classmates do nice things for you? YES NO
22. Do your folks seem to think that you are going to amount to something? YES NO
23. Do people seem to think well of your family's social standing? YES NO
24. Do your friends seem to think you have likeable traits? YES NO
25. Do members of the opposite sex seem to like you? YES NO
26. Do people usually seem interested in the things you are doing? YES NO
27. Do your friends seem to think that your ideas are usually poor? YES NO
28. Do you feel that people recognize your social standing as they should? YES NO
29. Are you usually given credit for the good judgment you show? YES NO
30. Are you considered a failure in many of the things you do? YES NO

Score Section 1 B

SECTION 1 A

1. Do you usually do something about it if someone steps in front of you in line? YES NO
2. Is it easy for you to introduce or be introduced to people? YES NO
3. Do you find it hard to keep from being bossed by people? YES NO
4. Is it hard for you to continue with your work when it becomes difficult? YES NO
5. Do you give considerable thought to your future work or career? YES NO
6. Do you usually get upset when things go wrong? YES NO
7. Is it hard for you to go on with your work if you do not get enough encouragement? YES NO
8. Do you usually do things that are good for you even if you do not like them? YES NO
9. Is it hard for you to admit it when you are in the wrong? YES NO
10. Is it easier to do things that your friends propose than to make your own plans? YES NO
11. Do you feel uncomfortable when you are alone with important people? YES NO
12. Do you prefer to keep your feelings to yourself when things go wrong? YES NO
13. Do you usually feel uneasy when you are around people you do not know? YES NO
14. Do you usually get discouraged when other people disagree with you? YES NO
15. Is it natural for you to feel like crying or pitying yourself whenever you get hurt? YES NO

Score Section 1 A

INSTRUCTIONS TO STUDENTS

INTERESTS AND ACTIVITIES

First look at each thing in this test. Make a circle around the **L** for each thing that you like or would very much like to do. Then make a circle around the **D** for things you really do.

1. LD Play the radio	27. LD Collect coins	51. LD Go to church
2. LD Read stories	28. LD Collect autographs	52. LD Go to Sunday School
3. LD Go to movies	29. LD Collect pictures	53. LD Belong to a club
4. LD Read comic strips	30. LD Use a camera	54. LD Belong to YMCA or YWCA
5. LD Work problems	31. LD Sew or knit	55. LD Go to parks
6. LD Study history	32. LD Repair things	56. LD Engage in sports
7. LD Study science	33. LD Make boats	57. LD Go to a circus
8. LD Study literature	34. LD Make airplanes	58. LD Sing in a chorus
9. LD Do cross-word puzzles	35. LD Make a radio	59. LD Sing in a glee club
10. LD Study trees	36. LD Work with tools	60. LD Belong to a gang
11. LD Study birds	37. LD Have a garden	61. LD Play ping pong
12. LD Study animals	38. LD Drive an automobile	62. LD Play croquet
13. LD Study butterflies	39. LD Play with pets	63. LD Play baseball
14. LD Draw or paint	40. LD Raise animals	64. LD Play tennis
15. LD Work in laboratory	41. LD Go fishing	65. LD Go hunting
16. LD Model or design	42. LD Climb or hike	66. LD Go riding with others
17. LD Do housework	43. LD Skate	67. LD Play in band
18. LD Sing	44. LD Ride a bicycle	68. LD Play in an orchestra
19. LD Play piano	45. LD Ride a horse	69. LD Go to church socials
20. LD Make a scrapbook	46. LD Practice first aid	70. LD Go to parties
21. LD Keep a diary		71. LD Go to dances
22. LD Write poems	47. LD Play cards	72. LD Be an officer of a club
23. LD Speak pieces	48. LD Play dominoes	73. LD Be a class officer
24. LD Play an instrument	49. LD Play checkers	74. LD Go camping
25. LD Visit museums	50. LD Play chess	
26. LD Collects stamps		
- After each of the following questions, make a circle around the **YES** or **NO**.
- For example, if you have a dog at home make a circle around **YES**. Do the other two the same way.
- A. Do you have a dog at home? YES NO
- B. Can you drive a car? YES NO
- C. Did you go to school last Friday? YES NO
- On the next pages are more questions.
- The answers are not right or wrong, but show what you think, how you feel, or what you do about things.
- Go right on from one page to another until you have finished all of them.

SECTION 1 C

31. Do you have enough time for play or recreation? YES NO
32. Do you have to do what other people tell you to do most of the time? YES NO
33. Do you work to earn part or all of your spending money? YES NO
34. Do your folks give you a reasonable amount of spending money? YES NO
35. Are you scolded for many little things that do not amount to much? YES NO
36. Do you feel that you are given enough liberty in doing what you want to do? YES NO
37. Do you sometimes go out with members of the opposite sex? YES NO
38. Are you allowed to say what you believe about things? YES NO
39. Do your folks often try to stop you from going around with your friends? YES NO
40. Do your parents cause you embarrassment when you associate with the opposite sex? YES NO
41. Do you feel that you are bossed around too much by your folks? YES NO
42. Are you usually allowed freedom to attend the socials or shows that you like? YES NO
43. Are you usually allowed to bring your friends to your home when you wish? YES NO
44. Are you encouraged to help plan your future vocation or career? YES NO
45. Are you free to go to interesting places during your spare time? YES NO

Score Section 1 C.....

SECTION 1 D

46. Do you feel that you are an important part of your school? YES NO
47. Do your teachers seem to want you in their classes? YES NO
48. Do you feel that your relatives are as attractive and successful as those of your friends? YES NO
49. Do your friends and acquaintances seem to have a better time at home than you do? YES NO
50. Do the people at home make you feel that you are an important part of the family? YES NO
51. Are you regarded as being as healthy and strong as most of your friends and classmates? YES NO
52. Have you often wished that you had different parents than you have? YES NO
53. If you are a young man, are you liked by the young women? If you are a young woman, do the young men like you? YES NO
54. Have you found it difficult to make as many friends as you wish? YES NO
55. Are you well enough liked at home so that you feel happy there? YES NO
56. Are you invited to groups in which both young men and women are present? YES NO
57. Do you have enough friends to make you feel good? YES NO
58. Do you feel that you fit well into the community in which you live? YES NO
59. Do you feel that your classmates are glad to have you as a member of their school? YES NO
60. Do you feel that people usually think well of you? YES NO

Score Section 1 D.....

SECTION 1 E

61. Are certain people so unreasonable that you can't help but hate them? YES NO
62. Do you find it more pleasant to think about desired successes than to work for them? YES NO
63. Do you find that many people seem perfectly willing to take advantage of you? YES NO
64. Do you have many problems that cause you a great deal of worry? YES NO
65. Do you find it hard to meet people at social affairs? YES NO
66. Are your responsibilities and problems often such that you cannot help but get discouraged? YES NO
67. Do you often feel lonesome even when you are with people? YES NO
68. Do you think that most people are out to cheat or "put it over" their associates? YES NO
69. Do you find many people inclined to say and do things that hurt your feelings? YES NO
70. Are you sorry that you are continually growing older? YES NO
71. Do you find it difficult to overcome the feeling that you are inferior to others? YES NO
72. Do you find it difficult to associate with the opposite sex? YES NO
73. Does it seem to you that younger persons have an easier and more enjoyable life than you do? YES NO
74. Do you often feel that people do not appreciate you or treat you as they should? YES NO
75. Are people frequently so unkind or unfair to you that you feel like crying? YES NO

Score Section 1 E.....

SECTION 1 F

76. Are you likely to stutter when you get worried or excited? YES NO
77. Do your muscles twitch some of the time? YES NO
78. Do you have the habit of biting your fingernails often? YES NO
79. Do you sometimes have nightmares? YES NO
80. Do you sometimes walk or talk in your sleep? YES NO
81. Do you suffer often from annoying eyestrain? YES NO
82. Is it hard for you to sit still? YES NO
83. Are you more restless than most people? YES NO
84. Are you inclined to drum restlessly with your fingers on tables, desks, and chairs? YES NO
85. Do people frequently speak so indistinctly that you have to ask them to repeat their questions? YES NO
86. Do you frequently find that you read several sentences without realizing what they are about? YES NO
87. Do you find that you are tired a great deal of the time? YES NO
88. Do you often have considerable difficulty in going to sleep? YES NO
89. Do you have frequent headaches for which there seems to be no cause? YES NO
90. Are you bothered by periodic dizzy spells? YES NO

Score Section 1 F.....

SECTION 2 A

SECTION 2 B

91. Is it right to create a scene in order to get your own way? YES NO
92. Is it all right to avoid responsibility or work if you are not required to do it? YES NO
93. Is it necessary to be especially friendly to new students? YES NO
94. If they look funny enough, is it all right to laugh at people who are in trouble? YES NO
95. Should students follow their parents' instructions even though their friends advise differently? YES NO
96. Is it always necessary to express appreciation for help or favors? YES NO
97. Does finding an article give a person the right to keep or sell it? YES NO
98. Is it all right to ignore teachers' requests if they appear to be unfair? YES NO
99. If you need something badly enough and cannot buy it, are there times when it is all right to take it? YES NO
100. Is it all right to cheat in a game when you will not get caught? YES NO
101. Do rich people deserve better treatment than poor ones? YES NO
102. Should a person be courteous to disagreeable people? YES NO
103. Are the beliefs of some people so absurd that it is all right to make fun of them? YES NO
104. Do older or elderly people deserve any special help not given others? YES NO
105. Is it necessary to obey "No Trespassing" signs? YES NO

Score Section 2 A.....

-6-

106. Do you often introduce people to each other? YES NO
107. Is it hard for you to lead in enlivening a dull party? YES NO
108. Is it easy for you to talk with people as soon as you meet them? YES NO
109. Is it difficult for you to compliment people when they do something well? YES NO
110. Do you often assist in planning parties? YES NO
111. Do you usually remember the names of people you meet? YES NO
112. Do you keep from letting people know when they irritate you? YES NO
113. Do you frequently find it necessary to interrupt a conversation? YES NO
114. Do you find that it causes you trouble when you help others? YES NO
115. Do you attempt new games at parties even when you haven't played them before? YES NO
116. Do you have many friends rather than just a few? YES NO
117. Do you find that members of the opposite sex appear at ease when chatting with you? YES NO
118. Do you like to have parties at your home? YES NO
119. Do you find it hard to help others have a good time at parties? YES NO
120. Do you find that many people are easily offended by you? YES NO

Score Section 2 B.....

SECTION 2 C

SECTION 2 D

121. Are you justified in taking things that are denied you by unreasonable people? YES NO
122. Do you have to stand up for your rights? YES NO
123. Are you often forced to show some temper in order to get what is coming to you? YES NO
124. Do you often have to make your classmates do things that they don't want to do? YES NO
125. Are people often so stubborn that you have to call them bad names? YES NO
126. Do you find it easy to get out of troubles by telling "white fibs"? YES NO
127. Do you sometimes think that it serves the school right if you break a few of their things? YES NO
128. Do you have to talk about yourself and your abilities in order to get recognition? YES NO
129. Are things frequently so bad at school that you just naturally stay away? YES NO
130. Are teachers and other people often so unfair that you do not obey them? YES NO
131. Do you often have to fight or quarrel in order to get your rights? YES NO
132. Are people often so thoughtless of you that you have a right to be spiteful to them? YES NO
133. Do little "kids" often get in your way so that you have to push or frighten them? YES NO
134. Are people at home or at school always bothering you so that you just have to quarrel? YES NO
135. Have things been so bad at home that you have had to run away? YES NO

Score Section 2 C.....

136. Are you troubled because your parents are not congenial? YES NO
137. Do the members of your family frequently have good times together? YES NO
138. Do your folks seem to believe that you are not thoughtful of them? YES NO
139. Are there things about one or both of your folks that annoy you? YES NO
140. Are things difficult for you because your folks are usually short of money? YES NO
141. Are you troubled because your folks differ from you regarding the things you like? YES NO
142. Do your folks appear to doubt whether you will be successful? YES NO
143. Does someone at your home quarrel with you too much of the time? YES NO
144. Do you like your parents about equally? YES NO
145. Do the members of your family seem to criticize you a lot? YES NO
146. Do you usually like to be somewhere else than at home? YES NO
147. Do you avoid inviting others to your home because it is not as nice as theirs? YES NO
148. Do some of those at home seem to think they are better than you? YES NO
149. Are your folks reasonable to you when they demand obedience? YES NO
150. Do you sometimes feel like leaving your home for good? YES NO

Score Section 2 D.....

-7-

151. Do you find it difficult that you may be in danger of failing? YES NO
152. Do you find that you can confide in at least one of your teachers? YES NO
153. Would you like to be chosen more often to take part in games and other activities? YES NO
154. If it were right would you stay away from school as often as possible? YES NO
155. Would you and your classmates like school better if teachers were not so strict? YES NO
156. Would you be happier if your classmates liked you better? YES NO
157. Does it seem to you that many of your teachers are nervous? YES NO
158. Do many of the teachers seem to be unfair or unreasonable to their students? YES NO
159. Do you like to go to school affairs with members of the opposite sex? YES NO
160. Do you find that classmates of the opposite sex are as nice as those of your own sex? YES NO
161. Do you enjoy being alone more than being with your classmates? YES NO
162. Are your classmates usually friendly to you? YES NO
163. Do your classmates seem to approve of the way you treat them? YES NO
164. Are many of your classmates so unkind or unfriendly that you avoid them? YES NO
165. Does your school discourage young men and women from enjoying each other's company? YES NO

Score Section 2 E

166. Do you hesitate to take responsibility for the welfare or safety of children or old persons? YES NO
167. Do you like to take care of your own or some neighbor's pets? YES NO
168. Are there any attractive members of the opposite sex in your neighborhood? YES NO
169. Do you know people who are so annoying that you would like to molest them? YES NO
170. Do you often play games with friends in your neighborhood? YES NO
171. Does it make you happy to know that your neighbors are getting along well? YES NO
172. Are there people of certain races that one should not be expected to tolerate? YES NO
173. Do you live in a rather uninteresting neighborhood? YES NO
174. Are the police officers of such a character that you would like to help them? YES NO
175. Do you visit with several young men and women in your neighborhood? YES NO
176. Do you sometimes go to neighborhood affairs with members of the opposite sex? YES NO
177. Do you ever do anything to improve the appearance of your home surroundings? YES NO
178. Are many of your neighbors the kind of people you dislike? YES NO
179. Do you usually speak to both young men and young women in your neighborhood? YES NO
180. Are most of the people in your community the kind you refrain from visiting? YES NO

Score Section 2 F

MANUAL OF DIRECTIONS

CALIFORNIA TEST OF PERSONALITY—SECONDARY SERIES

A Profile of Personal and Social Adjustment

Devised by Ernest W. Tiegs, Willis W. Clark, and Louis P. Thorpe¹

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THE AUTHORS

ERNEST W. TIEGS, Ph.D. (Minnesota). Editor-in-Chief, California Test Bureau. Formerly: Dean of University College and Professor of Education, The University of Southern California; Assistant to the Superintendent of Schools, Minneapolis, Minnesota. Author of such works as *Tests and Measurements for Teachers*; *Tests and Measurements in the Improvement of Learning*; co-author of *Progressive Achievement Tests* and *California Test of Mental Maturity*.

WILLIS W. CLARK, Ed.D. (Southern California). Director of Research and Technical Services, California Test Bureau. Formerly: Director of Research and Guidance, Los Angeles County Schools; Assistant Director of Research and Guidance, Los Angeles City Schools. Author and co-author of numerous research studies and such standardized tests as *Ingraham-Clark Diagnostic Reading Tests*, *Los Angeles Diagnostic Tests*, *Progressive Achievement Tests*, *California Test of Mental Maturity*, and *Mental Health Analysis*.

LOUIS P. THORPE, Ph.D. (Northwestern). Professor of Education and Psychology, and formerly Director of the Psychological Clinic, The University of Southern California. Author of *Psychological Foundations of Personality and Life*; author of numerous articles on applied psychology; co-author of *Mental Hygiene in Modern Education*, *Occupational Interest Inventory*, and *Mental Health Analysis*.

Part I. Purpose of the Test

The California Test of Personality has been designed to identify and reveal the status of certain highly important factors in personality and social adjustment usually designated as *intangibles*. These are the factors that defy appraisal or diagnosis by means of ordinary ability and achievement tests. Measurements of capacity, skill, and achievement, important as they are, do not constitute a complete picture of a functioning personality. When the teacher has, in addition to the above, evidences of a student's characteristic modes of response in a variety of situations which vitally affect him as an individual or as a member of a group, he can use this more complete picture to guide him to better personal and social adjustment.

From one standpoint, use of the term *personality* is unfortunate. Personality is not something separate and apart from ability or achievement but includes them; it refers rather to the manner and effectiveness with which the whole individual meets his personal and social problems, and indirectly the manner in which he impresses his fellows. The individual's ability and past achievements are always an inevitable part of his current attempts to deal with his problems intelligently. Since tests of ability and achievement are already available, the term personality test (measure, inventory, or profile) has become attached to instruments for identifying and evaluating the more intangible elements of total complex patterns of feeling, thinking, and acting.

Insistence on respect for the "wholeness" of the adjusting organism, or guidance of the whole student, represents a major contribution of the modern movement in education. This personality test is an implement or tool through which the teacher can more easily and effectively approach this desirable goal.

Some of the distinctive features of the California Test of Personality may be stated as follows:

1. The major purpose of the test is to reveal the extent to which the student is adjusting to the problems and conditions which confront him and is developing a normal, happy, and socially effective personality.
2. The test is divided into two sections. The

¹The authors take pleasure in acknowledging their indebtedness to Dr. Elizabeth T. Sullivan and Dr. Welly Lefever for suggestions made during the development of this Manual of Directions for teachers.

purpose of Section 1 is to indicate how the student feels and thinks about himself, his self-reliance, his estimate of his own worth, his sense of personal freedom, and his feeling of belonging. In this section the student also reveals certain withdrawing and nervous tendencies which he may possess. Section 2 consists of social adjustment components. Its purpose is to show how the student functions as a social being, his knowledge of social standards, his social skills, his freedom from anti-social tendencies, and his family, school, and community relationships.

An evaluation of these components discloses whether or not the student's basic needs are being met in an atmosphere of security and whether he is developing a balanced sense of self-realization and social acceptance.

3. The diagnostic profile is so devised that it is possible to compare and contrast the adjustment patterns and habits of each student with the characteristic modes of response of large representative groups of similar students. The profile thus reveals graphically the points at which a particular student differs from presumably desirable patterns of adjustment and which constitute the point of departure for guidance. No computations are necessary on the part of the teacher in completing the profile.

4. This test is based upon a study of over 1000 specific adjustment patterns or modes of response to specific situations which confront students of these ages. Many of these items had previously been validated by other workers. The items finally included in the two sections of the test were selected on the basis of:

- Judgments of teachers and principals regarding their relative validity and significance.
- The reactions of students, expressing the extent to which they felt competent and willing to give correct responses.
- A study of the extent to which student responses and teacher appraisals agreed.
- A study of the relative significance of items by means of the bi-serial r technique.

5. In harmony with the generally recognized importance of a well balanced personality, the profile is so devised as to reveal graphically when adjustment in various situations is satisfactory, when it departs significantly, and when characteristic patterns deviate so far from typical adjustment that they indicate possible or actual danger.

Part II. Nature of the Test

The California Test of Personality is a teaching-learning or developmental instrument primarily. Its purpose is to provide the data for aiding students to maintain or develop a sane balance between self and social adjustment. Student reactions to items are obtained, not primarily for the usefulness of total or section scores, but to detect the areas and specific types of tendencies to think, feel, and act which reveal undesirable individual adjustments.¹ Each

group of related unsatisfactory responses becomes in a sense, therefore, a major objective of student guidance. Part IX of this Manual presents methods of classifying and treating such adjustment difficulties. *This is a unique feature of the test.*

The fact that exactly six sub-tests appear in each of the two sections of the test may erroneously suggest a purely arbitrary classification. Research began with sixteen components, some of which had been at least partially validated by other workers. Three of these components subsequently disappeared while two others were thrown together and treated as a single component, leaving twelve in all. The use of exactly fifteen items in each component is partially arbitrary and resulted from the decision to develop a one-period instrument. However, the final selection of items in each component was based upon the relative sizes of their bi-serial r 's and the relative number of *yes*, *no*, and *omitted* responses which they received in the experimental tryout.

Although factor analysis studies of the data secured through the use of this test have been in progress for many months, the factors extracted represent a grouping of tendencies to act which vary considerably from the concepts which abound in the literature on personality and with which teachers are familiar.

From a practical operational standpoint arrived at through experimental tryouts of the test, it has seemed wise to retain familiar terminology in an organization of components based on logical analysis, experience, the judgments of workers in this field, and a considerable number of statistical studies.

Factor analysis and other statistical studies are continuing in the hope that as the nature of these personality factors becomes better known to investigators and teachers alike, their component designations and profile organization may increasingly approach the realities which they seek to represent.

The differentiation of personality and social adjustment into twelve more or less well defined components.

(Continued on page four)

¹ The authors desire to emphasize at this point that a response to a single item of the test abstracted from its component setting and its relationship to other components may be misleading. Neither should the significance of a single deviation from what is typical for the larger group be overemphasized. Such deviations must be interpreted in the light of the drives and urges which motivate them.

The authors are primarily interested in determining the seriousness of deviation from other group means. They are not interested in measuring the extent to which such deviations represent internally consistent conduct on the part of students who are significantly out of step with the group means or standards; most such deviations probably do represent definite attempts to maintain such consistency. The authors are interested rather in utilizing this factor of probable internal consistency in identifying the causes of deviations in behavior in order to provide a basis for guiding students to better adjustment.

The teacher need not be worried because this changing complex of tendencies to feel, think, and act cannot be defined in simple static terms, or because some traditional concepts of alleged traits must be abandoned. Neither need the teacher be perturbed because some of the concepts and techniques of the present instrument represent departures from those utilized in connection with ability and achievement tests. So long as the teacher can with reasonable success identify significant departures from typical adjustment patterns through the use of norms or group tendencies, and deal with them in terms of their most probable causes, philosophical arguments and debates can safely be left to those who are not so familiar with what happens in the classroom.

This problem has been emphasized in a comprehensive manner by Douglas Spencer in his *Fulcrum of Conflict*.

SECONDARY SERIES

SCORING KEY—FORM A

CALIFORNIA TEST OF PERSONALITY

SEC. 1A	SEC. 1B	SEC. 1C	SEC. 1D	SEC. 1E	SEC. 1F	SEC. 2A	SEC. 2B	SEC. 2C	SEC. 2D	SEC. 2E	SEC. 2F
					76. NO	91. NO	106. YES	121. NO	136. NO	151. NO	166. NO
1. YES	16. YES	31. YES	46. YES	61. NO	77. NO	92. NO	107. NO	122. NO	137. YES	152. YES	167. YES
2. YES	17. NO	32. NO	47. YES	62. NO	78. NO	93. YES	108. YES	123. NO	138. NO	153. NO	168. YES
3. NO	18. YES	33. YES	48. YES	63. NO	79. NO	94. NO	109. NO	124. NO	139. NO	154. NO	169. NO
4. NO	19. NO	34. YES	49. NO	64. NO	80. NO	95. YES	110. YES	125. NO	140. NO	155. NO	170. YES
5. YES	20. YES	35. NO	50. YES	65. NO	81. NO	96. YES	111. YES	126. NO	141. NO	156. NO	171. YES
6. NO	21. YES	36. YES	51. YES	66. NO	82. NO	97. NO	112. YES	127. NO	142. NO	157. NO	172. NO
7. NO	22. YES	37. YES	52. NO	67. NO	83. NO	98. NO	113. NO	128. NO	143. NO	158. NO	173. NO
8. YES	23. YES	38. YES	53. YES	68. NO	84. NO	99. NO	114. NO	129. NO	144. YES	159. YES	174. YES
9. NO	24. YES	39. NO	54. NO	69. NO	85. NO	100. NO	115. YES	130. NO	145. NO	160. YES	175. YES
10. NO	25. YES	40. NO	55. YES	70. NO	86. NO	101. NO	116. YES	131. NO	146. NO	161. NO	176. YES
11. NO	26. YES	41. NO	56. YES	71. NO	87. NO	102. YES	117. YES	132. NO	147. NO	162. YES	177. YES
12. YES	27. NO	42. YES	57. YES	72. NO	88. NO	103. NO	118. YES	133. NO	148. NO	163. YES	178. NO
13. NO	28. YES	43. YES	58. YES	73. NO	89. NO	104. YES	119. NO	134. NO	149. YES	164. NO	179. YES
14. NO	29. YES	44. YES	59. YES	74. NO	90. NO	105. YES	120. NO	135. NO	150. NO	165. NO	180. NO
15. NO	30. NO	45. YES	60. YES	75. NO	91. NO	106. YES	121. NO	136. NO	151. NO	166. NO	

ORGANIZATION OF THE CALIFORNIA TEST OF PERSONALITY

LIFE ADJUSTMENT: A balance between self and social adjustment	1. Self Adjustment: Based on feelings of personal security	A. Self-reliance
		B. Sense of Personal Worth
		C. Sense of Personal Freedom
		D. Feeling of Belonging
		E. Freedom from Withdrawing Tendencies
		F. Freedom from Nervous Symptoms
	2. Social Adjustment: Based on feelings of social security	A. Social Standards
		B. Social Skills
		C. Freedom from Anti-social Tendencies
		D. Family Relations
		E. School Relations
		F. Community Relations

BRIEF DEFINITIONS OF THE VARIOUS COMPONENTS¹

1A. Self-reliance—A student may be said to be self-reliant when his actual actions indicate that he can do things independently of others, depend upon himself in various situations, and direct his own activities. The self-reliant boy or girl is also characteristically stable emotionally, and responsible in his behavior.

1B. Sense of Personal Worth—A student possesses a sense of being worthy when he feels he is well regarded by others, when he feels that others have faith in his future success, and when he believes that he has average or better than average ability. To feel worthy means to feel capable and reasonably attractive.

1C. Sense of Personal Freedom—A student enjoys a sense of freedom when he is permitted to have a reasonable share in the determination of his conduct and in setting the general policies that shall govern his life. Desirable freedom includes permission to choose one's own friends and to have at least a little spending money.

1D. Feeling of Belonging—A student feels that he belongs when he enjoys the love of his family, the well-wishes of good friends, and a cordial relationship with people in general. Such a student will as a rule get along well with his teachers and usually feels proud of his school.

1E. Withdrawing Tendencies—The student who is said to withdraw is the one who substitutes the joys of a fantasy world for actual successes in real life. Such a person is characteristically sensitive, lonely, and given to self-concern. Normal adjustment is characterized by reasonable freedom from these tendencies.

1F. Nervous Symptoms—The student who is classified as having nervous symptoms is the one who suffers from one or more of a variety of physical symptoms such as loss of appetite, frequent eye strain, inability to sleep, or a tendency to be chronically tired. Persons of this kind may be exhibiting physical expressions of emotional conflicts.

2A. Social Standards—The student who recognizes desirable social standards is the one who has come to understand the rights of others and who appreciates the necessity of subordinating certain desires to the

needs of the group. Such a person understands what is regarded as being right or wrong.

2B. Social Skills—A student may be said to be socially skillful or effective when he shows a liking for people, when he inconveniences himself to be of assistance to them, and when he is diplomatic in his dealings with both friends and strangers. The socially skillful student subordinates his egoistic tendencies in favor of interest in the problems and activities of his associates.

2C. Anti-social Tendencies—A student would normally be regarded as anti-social when he is given to bullying, frequent quarreling, disobedience, and destructiveness to property. The anti-social person is the one who endeavors to get his satisfactions in ways that are damaging and unfair to others. Normal adjustment is characterized by reasonable freedom from these tendencies.

2D. Family Relations—The student who exhibits desirable family relationships is the one who feels that he is loved and well-treated at home, and who has a sense of security and self-respect in connection with the various members of his family. Superior family relations also include parental control that is neither too strict nor too lenient.

2E. School Relations—The student who is satisfactorily adjusted to his school is the one who feels that his teachers like him, who enjoys other students, and who finds the school work adapted to his level of interest and maturity. Good school relations involve the feeling on the part of the individual that he counts for something in the life of the institution.

2F. Community Relations—The student who may be said to be making good adjustments in his community is the one who mingles happily with his neighbors, who takes pride in community improvements, and who is tolerant in dealing with both strangers and foreigners. Satisfactory community relations include as well the disposition to be respectful of laws and of regulations pertaining to the general welfare.

¹The reader's attention is called to the fact that these components are not names for so-called general traits. They are, rather, names for groupings of more or less specific tendencies to feel, think, and act.

nents as a basis for diagnosis and guidance represents, in itself, a wide departure as well as a significant challenge for teachers. Such a treatment should result in an increasingly sympathetic and intelligent handling of adjustment problems.

Part III. Reliability

Certain outcomes such as knowledges, understandings, and skills, once attained, remain relatively stable and tests designed to reveal their presence may possess relatively high statistical reliability. The normal student, on the other hand, is a growing organism whose integration must be preserved while his feelings, convictions, and modes of behavior are changing in accordance with his experiences. Some of the items of this test touch relatively sensitive personal and social areas, and such student attitudes may change in a relatively short-time. For these and other reasons, the statistical reliability of instruments of this type will sometimes appear to be somewhat lower than that of good tests of ability and achievement.

However, the reliability of the California Test of Personality does not suffer by comparison with many widely used tests of mental ability and school achievement. The following correlations were obtained with 558 cases by the split-halves method corrected by the Spearman-Brown formula:

	<i>r</i>	<i>S.D. dist.</i> score	<i>P.E. est.</i> score
Total Adjustment	.931	19.9	3.5
Sec. 1. Self Adjustment...	.904	11.5	2.4
Sec. 2. Social Adjustm't	.908	10.0	2.0

The correlation between Section 1 and Section 2, .54, is sufficiently low to emphasize the desirability of studying the student from the standpoint of both self adjustment and social adjustment. The reliabilities of the component tests vary from .60 to .87 and are thus sufficiently high to locate more restricted areas of personality difficulty. After these areas have been located, the teacher may proceed to identify specific adjustment difficulties as indicated in Part IX.

Part IV. Validity

The validity of any instrument is dependent not only upon its intrinsic nature but also upon the manner in which it is to be used. The latter point is an important consideration in the validation of instruments in the personality field. Among the factors of importance that are related to the validity of the present test are the following:

- Selection of Items
- The Personality Components
- Test Item Disguise
- Limitations

Each of these factors will receive brief consideration.

A. Selection of Items

Adequate selection of test items is, in general, the best guarantee of the validity of any testing instrument. Attention has already been called to the manner in which reactions of students, teachers, and principals, other tests, and statistical techniques were utilized in the process of validation of the California Test of Personality.

B. The Personality Components

The twelve components mentioned in Part I and presented in Part II of this Manual represent functionally related groups of crucial, specific evidences of personal or social adjustment; their names correspond to some of the most important present-day personality adjustment concepts which are vital to normal growth and development. The items of each component represent fundamental action patterns. The obtained correlations among components emphasize the unity or "wholeness" of normal individuals; as would be expected, these personality components are not mutually exclusive.

C. Test Item Disguise

The authors have been sensitive to the tendency of some students to paint self-portraits which are better than the originals. They have attempted to nullify the effects of these tendencies in two ways; namely, by disguising as many items as possible which might conflict with the student's tendency to protect himself, and by providing outside checking devices as indicated in Part X.

The authors do not ask, "Do you play truant?" but rather, "Are things frequently so bad at school that you just naturally stay away?" They do not ask, "Do you quarrel or are you quarrelsome?" but, "Does someone at your home quarrel with you too much of the time?" Such disguised items do not tempt the student to detect their purpose by asking, "Are you too sensitive?" but instead ask, "Do you find many people inclined to say and do things that hurt your feelings?"

In many such instances the facts about a student's adjustment are not as important as *the way he feels and what he believes concerning them*, since such beliefs and feelings are frequently the keys to his intimate personality status, as well as to his possible improvement.

D. Limitations

Practical considerations have limited the test to one hundred and eighty items. Many others might have been used to obtain a more complete sampling. However, it is possible that a careful selection of items has produced a relatively short instrument which is as reliable and useful as one of greater length.

Language difficulties may affect the usefulness of tests and personality profiles. In spite of the safeguards used, the present test probably has not escaped the influence of this shortcoming. The differing points of view and attitudes of those who read the test items

will, no doubt, result in interpretations somewhat at variance from those intended. The varying language abilities of students may also produce discrepancies in understanding and response. Changing attitudes and a lack of self-knowledge are other problems which must be faced. However, the authors have evaluated the language of these tests by means of the Lewerenz Vocabulary Grade Placement Formula, teacher reactions, and student responses, and have, in general, kept the language difficulties at or below the seventh grade level of difficulty.

Part V. The Integrated Personality

The authors wish to re-emphasize the desirability of interpreting and aiding the student in terms of an essential unity of function and adjustment. For this reason, interpretations of profile data should be made, and plans for personality improvement should be projected, not only in terms of the testimony of the test itself, but also in terms of the factors that are operating to defeat adequate adjustment.

Mental deficiency or mental immaturity may be productive of many types of difficulties. Inability to read or to succeed in some other type of school activity may create conflicts which encourage the development of various kinds of defense mechanisms. These difficulties frequently first come to the attention of the teacher in such forms of misbehavior as negativism, day-dreaming, ego-centrism, or other unsatisfactory detours around the problems of a too complex educational environment. Many of the apparently physical difficulties of students have no observable physical basis whatsoever but may result from unsatisfactory efforts to solve conflicts which arise because school activities are not in harmony with their interests, needs, and capacities.

It is desirable, therefore, that after the test has revealed specific evidences of difficulty, the teacher view the whole individual in his total environment, as far as possible, before selecting and using the types of remedial activities described in Part IX of this Manual.

Part VI. Directions for Administering

The student responses secured in this test are designed to furnish diagnostic information regarding various elements of personality and social adjustment. It will be noted that, beginning on page 3, there are twelve sections with a total of 180 questions. A list of interests and activities is presented on page 2 of the booklet. Students are to indicate the things they like and the things they do after completing the test questions.

There is no time limit for the responses and students should be permitted to answer all items. Ordinarily the responses may be given in one class period of 45 minutes.

Students should have lead pencils and a test booklet. Directions to be given students are in black type.

After identifying data are recorded on the front page, state: **Open your booklet and fold back the page to page 2.** (Ignore Interests and Activities for the present. Demonstrate and be sure that students have found page 2.)

Now look at the bottom where it says: "Instructions to Students." After each of the following questions, put a circle around the YES or NO. (Illustrate circle on blackboard if necessary.) Do you have a dog at home? Put a circle around the YES or the NO. Now answer the other questions by putting a circle around the YES or NO.

On the next pages are more questions. The answers are not right or wrong, but show what you think, how you feel, or what you do about things.

Go right on from one page to another until you have finished them all.

An Interests and Activities questionnaire is provided on page 2. This may be given immediately following completion of the test or at a later time, if desired. The instructions are: The examiner is to read the directions aloud and explain that students are to draw a circle around "L" for things they like or would like to do. They are to draw a circle around "D" for the things they really do.

For use of the Interests and Activities questionnaire, see Part XI of this Manual.

Instructions for giving the Test when the Special Machine Scoring Answer Sheet is to be used. Read the instructions given on this answer sheet. Do not read the instructions on page 2 of the test booklet.

Part VII. Directions for Scoring

Use the answer key which is furnished with the test to determine desirable responses in each section of the test. There are fifteen items in each sub-section and the score for each column is the number of student responses which conform with the answer key. Indicate desirable responses with a C.

If erasures or changes are made, consider the intent of the student.

If both YES and NO are marked, or if the answer is omitted, no credit is given.

Needless to say, the scorer should be careful to use the correct column of the answer key for each test column.

Count the desirable student responses (number of C's) and record the number on the dotted line at the bottom of each column.

Part VIII. Directions for Recording and Charting Scores and Percentiles

The steps in recording and summarizing data on the front page of the booklet are as follows:

1. Transfer the section scores of each of the twelve sections to the right of the 15's in the column headed "Student's Score."

2. Add the scores of Section I, A-F, to obtain the Self Adjustment Score.

3. Add the scores of Sections II, A-F, to obtain the Social Adjustment Score.

4. Add the Self Adjustment and the Social Adjustment Scores to obtain the Total Adjustment Score.

5. To determine percentile ranks for each section and for total adjustment refer to the table of percentile norms on the last page of this Manual. (See illustration on page 7).

6. To prepare the chart on the right half of the page, mark with an x the percentile rank for each section and connect these x's with lines in Sec. 1 and in Sec. 2. Also indicate with an x the percentile rank for total adjustment.

Directions for interpretation of these data and for student guidance are given in Part IX. Briefly, it may be stated that maladjustment in the various components is indicated when the student's score is among the lower percentiles, or when the percentile graph tends to the left.

In the event that the examiner believes there are serious divergencies in the profile from observed behavior, read the comments in Part X.

Part IX. Directions for Interpreting Profiles and Guiding Adjustment Activities

A. Student Adjustment a Problem for All Teachers

Examination of the completed profiles for the students of a class will usually reveal the fact that the need for assistance in improving personality and social adjustment is not restricted to a limited number of "problem" students; instead, the impact and interaction of environmental factors with individual needs and desires creates some adjustment problems for all.

These adjustment problems vary in complexity. The great majority of them are probably unfortunate habit patterns of feeling and action which must be changed. Others have their origin in physical difficulties which must be relieved or corrected before re-education is possible. Actual or virtual mental deficiency may account for others. An appreciable number of problems undoubtedly arise from deep-seated conflicts which must be detected and brought to light. These conflicts may result from such factors as feelings of insecurity, real or fancied injury to the individual or to others, and to lack of successful achievement either in or out of school. In some instances lack of adjustment may be evidence of actual or incipient mental disorders which teachers may learn to recognize even though they are not qualified to attempt to treat them.

In the past we have emphasized the achievement

of such more or less academic outcomes as knowledges, appreciations, attitudes, and skills for all students in proportion to their capacities and needs. A better understanding of the nature of the student and his problems now leads us in a similar manner to recognize and to meet his needs for assistance in personality development and social adjustment. Just as the teacher periodically combines the results of informal observation and tests to evaluate academic achievement, she may now combine informal observation, the testimony of the profile, and other types of evidence to determine individual success or need for assistance in personality problems and social adjustment difficulties.

B. Studying the Profile

The profile (personality picture) has been divided into twelve aspects or components because these seem to represent the most important identifiable personality and social adjustment areas. An attempt has been made to give these components names which correspond in a general way to behavior concepts with which teachers are already familiar. Please note that components 1E, 1F, and 2C represent undesirable tendencies. The test is so devised, however, that a high score means a favorable score, and is to be interpreted as freedom from withdrawing tendencies, nervous symptoms, and anti-social tendencies.

Each component (self-reliance, for instance) is composed of fifteen personal questions yielding evidences of the presence or absence of an adjustment problem of its kind. From the profile the teacher first discovers the components, if any, in which a given student deviates seriously from young people in general. Such components may next be examined to discover specific answers which reveal lack of adjustment.

In general, study of the profile results may consist of the following steps:

1. Determining the number of students who deviate seriously in each component. This information will reveal what component areas constitute adjustment problems for the group as a whole.

2. Determining the specific items of each of the above components which are giving difficulty. These specific difficulties may then be treated as specific class adjustment problems.

3. Studying the individual profiles which deviate markedly from the general class problems and determining the specific difficulties of each such student.

4. Studying the students' records of interests and activities, both for possible causes of difficulty and for clues to appropriate remedial treatment.

C. General Principles of Method

In the past it has been a too common practice, in giving various personality inventories and interest blanks, to note total or partial scores and then to file these results for future action, which rarely materialized. It has been the purpose of the authors of the

(Continued on page eight)

Name Helen Smith Grade 11-A
School Lincoln High Age 17 Last Birthday May 14
Teacher Miss Brown Date May 19, 1937 Sex: M () F ()

The above profile of Helen Smith reveals that she is located at the 25 percentile in self adjustment. This means that she surpasses about one-fourth and is surpassed by three-fourths of the students on whom the percentile norms of this test are based. Her social adjustment is slightly below average (40 percentile) but not necessarily at a desirable standard.

Helen appears to have an adequate knowledge of social standards and is reasonably well adjusted in family and community relationships. She is also relatively free from anti-social tendencies and from nervous symptoms which might have indicated emotional conflicts.

On the other hand, Helen is decidedly lacking in social skills and in adjustment in school relationships. An inspection of the particular situations in these components in which she reports feelings and actions of an unsatisfactory nature may provide clues to her difficulty. On the self-adjustment side,

Helen is also very low in her sense of personal worth and feeling of belonging. These difficulties are accompanied by a serious tendency to withdraw from reality and to secure personal satisfactions through the substitution of fantasies for successes in real life.

The profile as a whole suggests decided lack of success in attaining security and favorable recognition, particularly in school situations. It would seem that special attention to the development of social skills and the provision of opportunity for success might readily remedy a situation which if not adequately met, may lead to more serious difficulties. An examination of the specific item answers, particularly in those areas in which the percentile rank is low, will reveal the responses which resulted in the unsatisfactory ratings secured. These responses should then be analyzed and interpreted in relation to the recommended plan of treatment given in Part IX of the Manual of Directions.

California Test of Personality to create an instrument which will implement the desire of teachers to direct learning and adjustment in harmony with the major objectives of modern education. In other words, the test represents a means by which teachers can more easily and effectively translate their desires to aid students into actual accomplishments.

The modern curriculum emphasizes the democratic ideal of learning and adjustment through freedom and direction. Since it is often the only part of the person's environment which may be specifically planned to meet his interests and needs in the light of capacities, the curriculum may well be regarded as a crucial factor in the development of symmetrical, effective, and well-balanced personalities.

In general, the improvement of personality and social adjustment consists of learning to substitute better responses for unsatisfactory or inadequate reactions in the concrete types of situations in which the student experiences adjustment difficulties. This means that the point of departure in aiding students to make better adjustments should be by way of an attack on the particular difficulties revealed by the test.

There are two major approaches, with their many variations, in the matter of student adjustment methodology. These contrasting approaches may, as a matter of convenience, be called the *direct* and the *indirect*. In the former the student is informed and *understands the purpose of the activities* in which he engages and may thus be led to cooperate voluntarily. By the latter method, the student is led to engage in or refrain from activities and to clarify errors of feeling or thinking which will improve his outlook *without being made conscious of the process* itself. This technique is somewhat analogous to that of obtaining correct expression in English by asking appropriate questions. Where the cause or contributing factor in maladjustment has been the teacher or a parent, care must be exercised in the use of the direct method. In such an instance, both the teacher and the parent should take a less evident part in remedial measures.

Teachers should exercise the greatest care in distinguishing between *symptoms* and *causes* of personality difficulty. In identifying types of maladjustment and planning remedial activity, the teacher must not lose sight of the danger of regarding symptoms as basic causes of personality disturbance and of attempting to remedy these difficulties by the mere elimination of symptoms. Causes of maladjustment frequently lie deeply imbedded in the emotional life of the student and can be identified only by careful and painstaking diagnostic study.

Remedial activity or treatment may for convenience be classified into six types, as follows:

1. *Personality exercises and practice.* This type of treatment is particularly useful for changing undesirable habit patterns. Examples of such patterns abound in the *self-reliance* and *social skills* components of the test.

2. *Correcting erroneous beliefs and attitudes.* Such attitudes occur in components dealing with knowledge

of social standards, sense of worth, feeling of belonging, sense of freedom, and in many family, school, and community relationships.

3. *Dealing with unfavorable environmental conditions.* Frequently the student could adjust satisfactorily except for certain factors in his home, school, or community environment. A change in attitude or activity on the part of teachers, parents, or neighbors frequently aids in the solution of a difficult problem.

4. *Modifying undesirable forms of attempted adjustment.* The treatment in this form of disturbance constitutes a different type of procedure. The maladjustments in question are illustrated in the *anti-social* and *withdrawing* tendency components.

5. *Elimination of physical and nervous difficulties.* These difficulties are fairly objective and easily recognized. They are sampled in the *nervous tendency* component. They may require medical attention and treatment. Their elimination may, however, involve considerable mental hygiene work with the student afflicted.

6. *The recognition and recording of apparent mental disorders.* Many students, at one time or another, appear to be egoistic and conceited; often they give evidence of being unduly suspicious. But when these and other more or less common, yet undesirable, adjustment tendencies become habitual or extreme, they may lead to serious mental disorders.

It is apparent that *no one component of the test should be treated as a completely independent unit in personality*. Neither should re-education activities be planned without reference to all other components. In addition, such sources of information as school records of ability, interests, and achievement, as well as other facts regarding home, out-of-school activities, and the like, should be investigated in difficult cases.

There are two basic principles which must be observed regardless of what method of treatment is indicated.

1. *The maladjusted student must often have something definite done for him before he can help himself.* Often positive social adjustments cannot be made until self-confidence and feelings of personal security are restored. Thus it is important that teachers attempt to determine the underlying *causes* of observed difficulties.

2. Adjustment problems should be broken into their simpler elements in order that improvement activities may be chosen with due regard to the needs and progress of the student. When the student does not seem sufficiently challenged by the methods utilized, the teacher may safely suggest more stimulating activities; but if the student fails in his efforts it may be necessary for the teacher to retrace her steps and break down the problem into its simpler phases.

The teacher should show the student that learning to deal with one's self and with others in an intelligent, sympathetic, and many-sided manner is one of the most important ways to attain happiness and success in life.

Space will not permit a separate illustration for each component of the profile; instead, six illustrations of these *six approaches to improvement* will be given.¹

D. Illustrative Examples and Suggestions for Treatment

1. SITUATIONS AIDED BY PRACTICE

Component 1A: Developing Self-reliance.

Form A, Item 4: Is it hard for you to continue with your work when it becomes difficult?

A student is self-reliant if he performs many acts in a way that indicates an inner feeling of assurance and security. If he is unable to perform these acts in this manner he is said to lack self-reliance. The basic principle of improvement, therefore, consists of creating confidence and effecting improvement through sympathetic and intelligent planning of definite situations for practice purposes.

If the student deviates sufficiently in this component (as revealed by the profile) to warrant special attention, each evidence of difficulty should be noted.

In general, a successful attack consists of five steps:

1. The student must be sure of the teacher's sympathy and respect.

2. The student must feel sure that the teacher understands his difficulty.

3. Consideration of the problem must develop a *feeling of security* and a *desire to improve* on the part of the student. The seriousness of difficulties should not be overemphasized.

4. In the light of available knowledge about the student and of the seriousness of his adjustment difficulties, the teacher must break down his problems into their appropriate elements.

5. The teacher must guide the student in a graduated series (from easy to more difficult) of adjustment activities which challenge but do not defeat him.

Assume for example that a student finds it difficult to talk in class. Some or all of the following steps may be used to aid him. The extent to which these need to be utilized depends on the seriousness of his disability.

a. Before the class hour begins, tell the student that he will be asked a question, the correct answer to which is "Yes." Ask the question and have him answer it.

b. Repeat step a utilizing single word answers (or short answers) given him beforehand until he responds confidently and until the members of the class expect him to answer.

¹ Teachers who desire to make a more comprehensive study of adjustment problems are referred to the following works: Thorpe, L. P. *Psychological Foundations of Personality*. New York: McGraw-Hill Book Company, 1938; Tiggs, E. W. and Katz, B. *Mental Hygiene in Education*. New York: The Ronald Press Company, 1941; Wilby, P. A., Skinner, C. E. and others. *Mental Hygiene in Modern Education*. New York: Farrar and Rinehart, 1938; Shaffer, L. F. *Psychology of Adjustment*. Boston: Houghton-Mifflin Company, 1936; and Rivlin, H. N. *Education for Adjustment*. New York: D. Appleton-Century Company, 1936.

c. Tell the student before class what questions he will be asked. Be sure that the questions are simple, that they require little talking, and that he knows the answers.

d. Without previous arrangement, ask the student questions which it is certain he can answer.

e. Ask the student to make a simple report from notes.

f. Ask for a simple report without notes.

g. Continue to increase the complexity of the tasks until the student does as well as can be expected.

h. If the student fails at any point, ignore the failure, and repeat the previous step or steps until he appears ready to progress.

The following is another example: Assume that the student finds it very difficult to meet or introduce people. Among the steps which will aid him are the following procedures:

a. The teacher (or someone else) tells the student the name, as well as some interesting fact, about the person who is to be introduced. The teacher has him repeat the name and suggests a question or comment for him to make in starting the conversation. The student meets the stranger and starts the conversation.

b. The teacher emphasizes the desirability of giving attention to the other person's name when being introduced. The student is told several things about a new person, but not his name. The student uses the name of the person when acknowledging the introduction and begins a conversation.

c. The teacher informs the student that he is to meet another teacher, student, banker, or some other person. She requests him to think of something interesting to say. When introduced, the student repeats the name of the other person and starts a conversation.

d. The teacher asks the student to make a list of things which different people might be interested in at various social functions. She asks such questions as, "If you met Mr. Black, editor of one of our local newspapers and parent of another student in this school, what would you talk about?"

e. Continue planning and practice until the student adjusts as well as appears possible.

2. ERRONEOUS BELIEFS AND ATTITUDES

Component 1D: Feeling of Belonging

Form A, Item 60: Do you feel that people usually think well of you?

Assume that a student answered "No" to this question. The fact that he may be wrong as shown by

later investigation does not change the unfavorable influence of his belief or attitude. It is necessary in some way, through explanation or evidence actually to change the attitude of this student before the influence of the erroneous belief can be eliminated.

An approach characterized by sympathetic interest and understanding on the part of the teacher, and a knowledge on the part of the student that the teacher is not judging or accusing but simply explaining, will often eliminate the problem.

The general method of approach in handling these erroneous beliefs and attitudes which are responsible for another large proportion of adjustment difficulties may be stated as follows:

1. Determine whether or not the student is right in his beliefs or attitudes.
2. If it is found that he is mistaken, explain his difficulties and show him his errors.
3. If the student is not convinced ask him to keep a record of his specific "weaknesses and illnesses" (or other erroneous beliefs). The mere keeping of a record will often convince him of his error.
4. If the student keeps a record of actual instances of weaknesses and illnesses and they appear to uphold his belief, the teacher must often readjust her first judgment. If, however, she is still convinced that the student is wrong, it is advisable to gather similar evidence regarding the extent to which other students face and meet the same problem. In the present instance it would be a record of the extent to which other students exhibited the same weaknesses and illnesses. If this evidence shows that the status of the student in question is typical, he no longer has any justification for his attitude.
5. If the student still persists in his belief, it may be based on other factors. Search should be made for evidence of conflicts in other components, for excessive feelings of inferiority, for difficulties in his record of ability and achievement.
6. If investigation proves that the student was right to begin with and that the evidence he gathered seems to uphold his point of view, the handling of his problem requires the modification of his activities to suit his physical condition and may be carried on in accordance with the procedures outlined in our next remedial section (No. 3) dealing with unfavorable environmental conditions.

It is rarely necessary to go into such detail with single evidences of difficulty and then usually only when the student deviates markedly in the component in question from the general pattern of most persons as revealed by the profile. But if students are more important than subjects, equipment, and time schedules, the wise teacher will be willing to go into this detail in order that they may be properly oriented and assisted in their efforts to make successful adjustments.

The same approach with appropriate modifications may be used in other similar types of difficulty.

3. DEALING WITH UNFAVORABLE ENVIRONMENTAL CONDITIONS

Component 2E: School Relations

Form A, Item 151: Are some of your subjects so difficult that you may be in danger of failing?

Component 2D: Family Relations

Form A, Item 145: Do the members of your family seem to criticize you a lot?

Assume that the student answers "Yes" to both of these and similar questions and that he is right in his beliefs. In both these instances something should be done. In the first case, the school has the major responsibility, and in the second, the problem is one for the home.

The school has long been aware of the first problem but only recently has it been possible to approach the solution for it with a rational and defensible plan. The mental age or intelligence quotient of a student reveals neither the cause nor the method of prevention of failure; neither does it reveal the worry and strain to which his personality is being subjected. The student should be shown an analysis of his learning difficulties, given some reduction in amount of work, and any other kind of treatment necessary to the development of a feeling of security. He must be put on a basis of equality with those who happen to be so constituted that they fit well into the program as it exists. In short, the school program should fit his maturity level. Sometimes this ideal requires a distinct change in teacher attitudes and procedures.

The second problem is more time consuming but just as important. It usually involves contact with individual parents and great tact is sometimes necessary to make them understand how they are defeating their own purposes and failing as parents when they destroy the feeling of security and the hope necessary for personal growth and adjustment on the part of their children.

After the problems for a schoolroom or for a whole school have been tabulated from the profile answers, the most general difficulties can be handled by principal and teachers in informal talks to students. These problems may also be made the subject of parent-teachers' and mothers' club meetings. Frequently outside speakers can be used to advantage after they have been informed of the major adjustment problems which exist in a particular group.

In addition to this general approach, the following technique will be found useful in handling individual patterns:

1. Meet parents casually and "size them up." Try to determine what personality characteristics they exhibit.
2. If they appear to be intelligent, understanding, and cooperative, begin at once explaining the student's

difficulties and asking for their cooperation. Suggest definite things for them to do in changing the student's attitude.

3. If the parents are unfriendly, indifferent, or conditions are otherwise unfavorable, they must be influenced through P. T. A. or other meetings and through personal contacts before the erroneous attitude is mentioned.

4. If the family is cooperative but unconvinced, attempt to have the parents keep a record for a short time of actual instances in which they exhibit the attitude which is so discouraging to the student.

5. It is not necessary that the parent admit his error, if he is in error, or that the student be made to admit his error in case the parent is right. Merely raising the question, dealing with it objectively so far as the facts of the case will permit, and discussing the difficulties and their implications is as far as the teacher can usually go. This procedure will, however, often improve the situation considerably, if not entirely eliminate the difficulty. Furthermore, the teacher frequently can compensate for the ill effects of the parents' treatment by giving the student the feeling of self-respect and security which he so much needs.

The specific difficulties mentioned above are representative of a large class for which the same general type of remedial procedures may be used.

4. DEALING WITH ANTI-SOCIAL AND WITHDRAWING TENDENCIES

Component 2C: Anti-social Tendencies

Form A, Item 131: Do you often have to quarrel or fight in order to get your rights?

Component 1E: Withdrawing Tendencies

Form A, Item 69: Do you find many people inclined to say and do things to hurt your feelings?

For the most part, individuals tend to scare, push, bully, dominate, and otherwise mistreat younger or smaller boys and girls because of inner feelings of inferiority or lack of ego recognition. The sufferer tries to convince himself that he is not inferior to others. His bullying is an anti-social way of attempting to compensate for his feeling of weakness.

Students withdraw from their problems and are characteristically shy, timid, sensitive, suspicious, and given to day-dreaming about their troubles for much the same reasons. Such persons tend to give up the battle of life; their day-dreams are but substitute avenues to the goal of being considered successful and worthy. The withdrawing tendency is considered serious because it leads to a disinclination to adjust to real people and to society in general.

Some students will give a large number of "yes" answers. Such responses are indicative of the need for a deeper feeling of security.

In general, the following treatment is recommended:

1. Develop the best teacher-student relationship possible. Let the teacher lose no opportunity to convince the student of her sympathetic understanding.
2. Whenever possible, give the student ego-satisfying responsibilities such as policing school halls, acting as club or group leader, or assisting in other school responsibilities. Care must be observed to assign responsibilities which the maladjusted student can and will carry successfully and which will not be resented by other students.
3. Adjust regular school tasks and activities to the needs and capacities of the student. Make a complete and detailed analysis of his difficulties and work with him until he wins success, with its attendant satisfaction, within the limits of his possibilities.
4. The major objective in this instance is adjustment and success within the student's own limitations, and not conformity to standards, some of which his limitations will prevent him from attaining. The teacher must find a sufficient number of activities in which the student can thus be successful if she is to provide the necessary feelings of security and relieve him of the necessity of maintaining his ego by anti-social or withdrawing behavior.

5. DEALING WITH NERVOUS SYMPTOMS

Component 1F: Nervous Symptoms

Form A, Item 78: Do you have the habit of biting your fingernails often?

Form A, Item 81: Do you suffer often from annoying eye strain?

Form A, Item 82: Is it hard for you to sit still?

Some of these symptoms, such as lack of appetite, eye strain, dizzy spells, headaches, and chronic fatigue may be due to physical disorders, and should thus be diagnosed and treated by an authorized physician. Many physical symptoms of this kind, however, are caused by feelings of insecurity and by emotional conflicts.

Students suffering from these nervous difficulties are usually unhappy in their homes, without good friends, lacking in social skills, and very much inclined to utilize their energy in self-concern and self-pity. Psychologically, the chief difficulty with such unfortunate boys and girls is that their attention is centered upon their own troubles rather than upon the interesting things that are going on around them. This is usually caused by the fact that these students have for years been frustrated in their efforts to secure the response and recognition from parents and others that provides the much coveted feeling of being wanted, of being considered worthy and successful. Thus these neurotic individuals are maladjusted in both the self and the social phases of life.

The following methods of handling difficulties of this kind are recommended:

1. Examine the student's health record in the nurse's or physician's file. If the record is old or otherwise unsatisfactory, or no record of a physical examination is available, such an examination should be requested.

2. If the examination record appears to reveal any evidence of a physical basis for nervous tendencies, the student should be referred to a physician for treatment.

3. If the physician reports no physical basis for adjustment difficulties the most probable cause of these nervous symptoms is similar to the major cause of anti-social behavior and withdrawing tendencies; namely, the lack and need of a feeling of adequate personal security.

4. Provide the appreciation, approval, and ego satisfactions that the individual craves as recommended for the anti-social behavior and withdrawing tendencies, but with the following modification: endeavor to restore hope and confidence before attempting to delegate responsibilities. This may be done by setting up conditions which tend to guarantee recognized success in school and elsewhere.

5. Students exhibiting nervous symptoms are aided by physiological as well as psychological relaxation. Teachers should avoid putting them in tension-producing situations. Excessive self-concern must gradually be replaced by satisfying experiences with others if nervous tensions are to be relieved.

6. The Beta hypothesis (negative practice) technique, as developed by Dunlap, is good for nervous tics. In other words, actually practicing a periodic closing of the eyes, muscle tremor, or other nervous tic aids in gaining conscious control over it and thus assists in its elimination. Such practice should, however, be directed by a psychologist, or a teacher who has been specially trained.

6. DEALING WITH MENTAL DISORDERS

In general, mental disorders may be considered extreme and persistent deviations from normal adjustment. From the standpoint of the teacher there would be reason to suspect such a case when long and persistent treatment with one or more of the first five treatment types was unsuccessful. However, the lack of teacher success is not proof of mental disorder. Under no circumstances should teachers suggest the existence of such a disorder. They should first of all seek the cooperation of the parents. If the student is referred to a psychiatrist or a clinic the teacher should give as objectively as possible the data which she has gathered and the treatment which she has attempted, and then cooperate with the psychiatrist or agency which is taking over the treatment of the case.

It should be recognized, however, that some students display the early symptoms of what is in legal terms called "insanity" under the very eyes of the teacher. Many of these unhappy youths are no doubt disinte-

grating in their emotional life due to excessive frustration and the constant presence of hostility. Certainly an appreciable fraction of this group could be assisted to better adjustment if their difficulties were detected and treated in time.

At any rate, there is danger that teachers untrained in mental hygiene matters will overlook symptoms of grave significance in the behavior of their charges. As a prominent psychologist recently commented, it is a matter of no small import that some teachers, as well as parents, permit children to manifest symptoms of psychosis (insanity) that may later become decidedly serious, without doing anything about them until it is too late. As an example, the student who is conceited and egoistic, who displays a superficial attitude in his relations to other people, and who is markedly suspicious may be developing the form of insanity called paranoia (a psychosis characterized by attitudes of conceit and grandeur and by systematic delusions of persecution).

E. Conclusions on Student Adjustment

Finally, the teacher should realize that students do not group themselves into personality types and that patterns of maladjustment often include disturbances in several of the components that have been included in the profile. A student may, and probably usually will, need assistance in several of the areas of possible disturbance. A student who lacks self-reliance may have erroneous attitudes, may be out of harmony with school and home regulations, and may be decidedly inclined to be anti-social in his relations to others. Maladjustments are not confined to types; they present a variety of symptoms that may pervade many areas of both self adjustment and social adjustment.

Because all aspects of personality are closely interlocked or integrated, remedial treatment that develops self-reliance may also eliminate anti-social behavior. And a change in environment that stimulates the withdrawing person to attack his problems may bring about a reduction in nervous symptoms as well. In short, sympathetic help that enables an unhappy student to find self-realization and to develop generous social attitudes will tend to help him achieve that balance of personality that makes for good life adjustment.

Part X. Directions for Checking Profiles Which Appear to Diverge from Observed Student Adjustment

If a student appeared ill or disturbed when responding to the questions of the test he should be given an opportunity to repeat the exercise at a more favorable time.

If lack of reading ability was a disturbing factor the teacher may give and interpret orally such parts of the test as appear to be in conflict with her observations.

If it appears that the student has consciously misrepresented himself, a number of checks are possible with most of the items:

1. Other teachers familiar with the student may be asked to respond to the items in question.

2. A few students may be asked to complete profiles for each other, including the student under examination.

3. After the parents have been appraised of the nature and objectives of the test, they may be asked to complete the items in question.

4. The student may be requested to repeat his performance at another time.

5. The teacher may keep a record of careful, systematic observation over a sufficiently extended period of time to obtain an adequate sampling of the student's characteristic behavior.

It should be remembered that not many such problem cases arise. The major purpose of the test is to detect the actual or incipient difficulties of normal young people in order to aid them in making better adjustments. But when apparent discrepancies arise between student responses and teacher observations it is important to determine the facts in order that remedial activities may be intelligently directed. The teacher should not trust her informal opinions too far; evidence from the test will usually be much more valid. Furthermore, it must be remembered that teachers sometimes stimulate unnecessary maladjustment by their unjustifiable unfavorable attitudes toward both individual students and whole classes.

Part XI. Interests and Activities

The Interests and Activities questionnaire (page 2 of test booklet) is not a part of the test proper and is not scored or charted on the first page profile as are the twelve adjustment components. The teacher will find it profitable to study the responses in this Interests and Activities questionnaire for students whose percentile profiles are low or to the left in any of the twelve components, and for others about whom additional information is desired.

The questionnaire yields four types of information about different interests and activities: (1) The things the student likes, or would like very much to do, but does not do; (2) The things the student likes, or would like to do, and actually does; (3) The things which the student does not like, or does not wish to do, but actually does; (4) The things the student neither likes nor does.

The interest and activity items are divided into (a) those of a primarily individual nature (Items 1-46) and (b) those that are predominantly social (Items 47-74). Within each of these two groups the items are arranged in the general order of the amount of activity involved, beginning with the more passive or sedentary types and advancing to those involving more activity or social participation.

After the teacher has identified the component or components in which a student appears to be experiencing difficulties, and has reviewed such other data as she can obtain regarding such factors as health, attendance, ability, and achievement, she should examine the student's responses to the Interests and Activities questionnaire.

A study of the questionnaire will still further enlarge the teacher's understanding of a student's personality, lend additional assistance in determining the cause or causes of his difficulty, and provide clues for planning remedial work. Among other facts the teacher should endeavor to determine why the student fails to do things that he would enjoy doing but does not do, why he does not like some of the things he does do, and whether or not anything can be done to bring about a better adjustment in the interests and activities field.

In general, a wide range of interests and activities is evidence of good adjustment; a narrow range in this respect may be indicative of actual or potential maladjustment. Therefore, a basic principle in dealing with most adjustment difficulties of this type is that of stimulating individual and social interests, and encouraging the student to become more active in such interests and activities as may be suited to his degree of physical, social, and mental maturity.

Part XII. Administrative Uses

Although this test has been designed primarily to aid teachers in detecting and dealing with adjustment problems, its usefulness is not confined to the individual classroom.

The normative data, or scores on the various sections of the test, should be summarized on the blanks provided in order that they may supply administrative officers with information regarding the adequacy of personal and social adjustment in:

1. Single classes in a given school
2. Individual schools
3. The whole school system

If the majority of self adjustment scores for a school or school system are low, it may indicate that the educational procedures in vogue are too formal or traditional and that more informal activities should be undertaken. If scores on freedom from withdrawing tendencies, freedom from nervous symptoms, and freedom from anti-social tendencies are low, it may indicate that the course of study materials are too difficult for student capacities. Such a situation might well be investigated. Low scores on social standards or social skills suggest the desirability of more emphasis on aspects of social training, etiquette, and attitude building which, in some school systems, are not regarded as being a part of the regular curriculum. Low scores on the community relations section of the test may indicate too little stress on school-community relations and suggest more emphasis on interpreting the activities and needs of the community in terms that students can comprehend.

Unsatisfactory school and school district trends revealed by percentile summaries are to be regarded as the points of departure for investigating the need or

desirability of modification in the objectives, materials, and procedures of the curriculum.

Teachers, supervisors, and administrators should be alert to the opportunities which are provided in the school environment for setting up stimulating situations that may act as important factors in the processes of student adjustment. The school provides many normal situations in which there are opportunities for social interaction, wholesome conflicts and accommodations, applications of social controls, exercise of leadership, and acceptance of responsibilities. These facilities should be inventoried, utilized, and when necessary, modified to harmonize with such objectives and procedures as are requisite to the development of well-adjusted and effective personalities.

A careful analysis of the available opportunities for personality development and their constructive utiliza-

tion in the problem of student adjustment is the privilege and opportunity of all who are engaged in conducting the Nation's educational program.

Part XIII. Percentile Norms

The percentile norms provided on the last page of this Manual were derived from test data for students in grades nine to fourteen inclusive in different schools in and near Los Angeles, California. A percentile may be described as a point on a 100 point scale which gives the per cent of scores which fall below that particular percentile. For example, a student whose score falls at the 35 percentile point exceeds 35 per cent of the students on whom the test was standardized; such a score may also be interpreted to mean that this student is lower than 65 per cent of the students in the standardization group.

Examiner's Memoranda:

CALIFORNIA TEST OF PERSONALITY—SECONDARY SERIES

PERCENTILE NORMS

	Percentile:	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
Sec. 1. Self Adjustment.....	Score:	1-37-45	37-45	46-52	53-55	56-58	59-61	62-64	65-66	67-68	69-70	71	72	73	74	75	76	77-78	79-80	81-82	83-88
Sec. 2. Social Adjustment.....	Score:	1-38	39-54	55-57	58-61	62-64	65-66	67-68	69-70	71-72	73	74	75	76	77	78	79	80	81	82-83	84-88
Total Adjustment	Score:	1-74	75-99	100-109	110-116	117-122	123-127	128-132	133-136	137-140	141-143	144-145	146-147	148-149	150-151	152-153	154-155	156-158	159-161	162-165	166-177
	Percentile:	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95

SUB-SECTION SCORES AND PERCENTILES

Self Adjustment		Score:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1-A Self-reliance	Percentile		1	1	1	1	5	15	25	35	45	60	70	80	90	95	99
1-B Sense of Personal Worth.....			1	1	1	1	1	1	5	5	10	20	35	50	65	80	95
1-C Sense of Personal Freedom.....			1	1	1	1	1	5	5	5	5	10	20	30	45	70	90
1-D Feeling of Belonging.....			1	1	1	1	5	5	5	5	10	15	20	30	45	70	90
1-E Withdrawing Tendencies			1	1	1	1	1	5	5	10	15	25	35	50	65	80	95
1-F Nervous Symptoms			1	1	1	1	1	5	10	15	30	45	55	65	75	85	95
Social Adjustment																	
2-A Social Standards	Percentile		1	1	1	1	1	1	1	1	1	5	10	25	45	70	90
2-B Social Skills			1	1	1	1	1	5	5	5	10	20	40	55	75	90	99
2-C Anti-social Tendencies			1	1	1	1	1	5	5	5	10	20	30	50	70	90	99
2-D Family Relations			1	1	1	1	1	1	5	5	10	20	30	45	60	80	95
2-E School Relations			1	1	1	1	1	5	5	10	15	25	45	60	75	90	99
2-F Community Relations			1	1	1	1	1	5	5	5	10	20	35	50	70	85	99
		Score:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

DIRECTIONS: To find the percentile value of self, social, or total adjustment score—use the upper table, locate the score, and read the percentile above or below the heavy black line. Thus a score of 135 in total adjustment has a percentile value of 35. To find the percentile value of a component or sub-section score—use the lower table, locate the score above the black lines, and read the percentile opposite the appropriate component. Thus a score of 11 in the self-reliance component has a percentile value of 70. See also description of the profile on page 7.

HESTON PERSONAL ADJUSTMENT INVENTORY

By JOSEPH C. HESTON, Ph.D.

Director of Bureau of Testing and Research and Associate Professor of Psychology
De Pauw University, Greencastle, Indiana

INVENTORY

There are no *right* or *wrong* answers to the questions on the following pages; each person differs in the way he feels about them. We are attempting to study certain aspects of personality that are important factors in one's adjustment to life, school, or work in general. You can help by answering each question thoughtfully and honestly. Your sincere cooperation in this will prove beneficial to you and your counselors. Think carefully, but do not spend too much time on any one question. Let your own personal experience or opinion guide you and record the way you feel about each question.

For each question, decide whether your answer is "Yes" or "No." If your answer is "Yes," blacken the "Yes" space on the answer sheet. If your answer is "No," blacken the "No" space. For instance, if your answers to questions 76, 77, 78, 79, and 80 were "Yes," "No," "No," "Yes," "No," respectively, you would fill in the answer spaces as follows:

	YES	NO
76	☒	☐
77	☐	☒
78	☐	☒
79	☒	☐
80	☐	☒

If you think the answer to a particular question is "Yes" under some circumstances and "No" under others, decide which is more often the appropriate answer and mark the corresponding space.

You should be able to decide for every question, or for almost every question, whether the true answer would usually be "Yes" or "No." If, however, there are a small number of questions for which you are absolutely unable to decide whether "Yes" or "No" is the better answer, fill in the circles containing the question numbers. For instance, if you could not choose between "Yes" and "No" for question 281, you would fill in the circle as follows:

	YES	NO
281	☒	☐

However, in nearly every case you should decide which answer is *more commonly characteristic* of you, thus keeping the number of omitted statements down to an absolute minimum.

In filling in answer spaces, be sure to make your marks heavy and black.

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Name _____ Date _____
 Last First Middle Mo. Day Yr.
 Sex _____ Age _____ Date of Birth _____
 M. or F. Yr. Mo. Day Yr.
 Grade in High School _____ or Year in College _____
 Class _____ Teacher _____
 School _____ City _____ State _____

Mark your answers on this sheet.
 Be sure your marks are heavy and black.
 Erase completely any answers you wish to change.

Page 3	Page 4	Page 5	Page 6	Page 7	Page 8
1 YES NO	20 YES NO	51 YES NO	76 YES NO	101 YES NO	126 YES NO
2 YES NO	21 YES NO	52 YES NO	77 YES NO	102 YES NO	127 YES NO
3 YES NO	22 YES NO	53 YES NO	78 YES NO	103 YES NO	128 YES NO
4 YES NO	23 YES NO	54 YES NO	79 YES NO	104 YES NO	129 YES NO
5 YES NO	24 YES NO	55 YES NO	80 YES NO	105 YES NO	130 YES NO
6 YES NO	25 YES NO	56 YES NO	81 YES NO	106 YES NO	131 YES NO
7 YES NO	26 YES NO	57 YES NO	82 YES NO	107 YES NO	132 YES NO
8 YES NO	27 YES NO	58 YES NO	83 YES NO	108 YES NO	133 YES NO
9 YES NO	28 YES NO	59 YES NO	84 YES NO	109 YES NO	134 YES NO
10 YES NO	29 YES NO	60 YES NO	85 YES NO	110 YES NO	135 YES NO
11 YES NO	30 YES NO	61 YES NO	86 YES NO	111 YES NO	
12 YES NO	31 YES NO	62 YES NO	87 YES NO	112 YES NO	
13 YES NO	32 YES NO	63 YES NO	88 YES NO	113 YES NO	
14 YES NO	33 YES NO	64 YES NO	89 YES NO	114 YES NO	
15 YES NO	34 YES NO	65 YES NO	90 YES NO	115 YES NO	
16 YES NO	35 YES NO	66 YES NO	91 YES NO	116 YES NO	
17 YES NO	36 YES NO	67 YES NO	92 YES NO	117 YES NO	
18 YES NO	37 YES NO	68 YES NO	93 YES NO	118 YES NO	
19 YES NO	38 YES NO	69 YES NO	94 YES NO	119 YES NO	
20 YES NO	39 YES NO	70 YES NO	95 YES NO	120 YES NO	
21 YES NO	40 YES NO	71 YES NO	96 YES NO	121 YES NO	
22 YES NO	41 YES NO	72 YES NO	97 YES NO	122 YES NO	
23 YES NO	42 YES NO	73 YES NO	98 YES NO	123 YES NO	
24 YES NO	43 YES NO	74 YES NO	99 YES NO	124 YES NO	
25 YES NO	44 YES NO	75 YES NO	100 YES NO	125 YES NO	

NOTE. This Answer Sheet is not intended for machine scoring.

1

HESTON PERSONAL ADJUSTMENT INVENTORY

Indicate your answers by marking them on the separate answer sheet. Do not mark this booklet at all. Remember to make your marks in the spaces on the answer sheet heavy and dark. Try to answer "Yes" or "No" to every question.

The answer sheet should be slipped under the right-hand edge of page 3 (or whatever page you are working on) in such a way that the column heading on the answer sheet and the page number on the booklet agree. These two numbers should be right next to each other. When the answer sheet is placed correctly, the arrow tips on it should point directly to the arrow tips on the booklet, and the answer spaces (and question numbers) on the answer sheet should be lined up directly with the questions in the booklet to which they correspond (and the question numbers).

- Are you disturbed because some of your family differ from your standards or beliefs? 1
- Do you daydream often? 2
- Are you most contented when at home? 3
- Are you less readily upset or frustrated than most people? 4
- Has your association with your father generally been pleasant? 5
- Can you keep at a monotonous task for a long time without urging or encouragement? 6
- Are you often absent-minded? 7
- Do you like to analyze your thoughts and feelings? 8
- Do you frequently feel self-conscious about your appearance? 9
- Do you evaluate new ideas to see if they fit your point of view? 10
- Have you any nervous habits, such as twitching your face or fluttering your eyelids? 11
- Do you avoid asking friends home because it is unattractive? 12
- Have you often been lost in thought? 13
- Does either of your parents become angry readily? 14
- Does it embarrass you greatly to make an error in a social group? 15
- If you lose something, are you apt to suspect someone of taking or misplacing it? 16
- Are you a happy-go-lucky person? 17
- Do you enjoy speaking in public? 18
- Do you become angry readily? 19
- Do you like to introduce yourself to strangers at social affairs? 20
- Do you often think of smart things to say when it is too late to say them? 21
- Do others generally credit you with good judgment? 22
- Can you face a difficult task without worry? 23
- Do you thoughtfully question the statements and ideas of teachers? 24
- Do you ever wish you were more attractive? 25

(Go right on to page 4.)

26. Does either of your parents insist on obedience, regardless of whether the request is reasonable?	Page 4 26
27. Do you become tense under competition, as in tennis, debating, etc.?	27
28. Is it hard for you to maintain a pleasant disposition at home?	28
29. Are you readily bothered by distractions when doing mental work?	29
30. Do you feel your parents have set too high goals for you?	30
31. Do you tend to be unconcerned about your work — that is, take it in a routine manner?	31
32. Are you hesitant about forming decisions?	32
33. Were you happier when you were younger?	33
34. Do you do much thinking more than that needed by your work?	34
35. Have you often felt there are really few things worth living for?	35
36. Are you ever disturbed by useless thoughts coming into your mind persistently?	36
37. Do you find less appreciation at home than elsewhere?	37
38. Do you dread seeing a snake?	38
39. Does your family feel you are not considerate of them?	39
40. Do you tend to worry over possible troubles?	40
41. Are you often left out of things (maybe unwittingly) in group activities?	41
42. Do you usually keep out of the limelight on social occasions?	42
43. Do you feel life has a great deal more happiness than trouble?	43
44. Do you enjoy having numerous social engagements?	44
45. Do you ever feel sorry for all the other people on earth?	45
46. Do you enjoy assignments forcing you to derive your own conclusions from a body of facts or data?	46
47. Have you ever had a queer feeling you were not your old self?	47
48. Do you usually plan and think things through before acting?	48
49. Can you tackle new situations with a reasonable degree of assurance?	49
50. Are you challenged by a problem until you reach a satisfactory answer?	50

(Go right on to page 5.)

51. Does either of your parents make you resentful by criticizing your appearance?	Page 5 51
52. Are you an impulsive individual?	52
53. Do your friends have more fun at home than you do?	53
54. Have there been frequent quarrels within your immediate family?	54
55. Do you sometimes feel just miserable, even if there is no good reason?	55
56. Do you sometimes tackle work as though it were a matter of life or death?	56
57. Do you ever feel too self-conscious?	57
58. Do you frequently theorize about the reasons for human behavior?	58
59. Are you often unable to reach a decision until too late for action?	59
60. Does conversation help you more than reading in formulating your ideas?	60
61. Can you regain a state of calm easily after an exciting situation is over?	61
62. Do some of your family generally neglect to repay favors?	62
63. Do you become easily rattled at critical times?	63
64. Do you feel your parents have dominated you too much?	64
65. Are your table manners less correct at home than when out in company?	65
66. Would you be very disappointed if prevented from having numerous social contacts?	66
67. Do you hesitate to accept new acquaintances as real friends?	67
68. Is it hard for you to make new friends?	68
69. Do you sometimes become angry?	69
70. Do you tend to restrict your acquaintances to a chosen few?	70
71. Does it seem you never do things in a manner to gain notice and praise from others?	71
72. Do you often philosophize concerning the purpose of life?	72
73. Does it disturb you for others to watch you while you work?	73
74. Have you more interest in athletics than in intellectual activities?	74
75. Do you tend to be quick and certain in your actions?	75

(Go right on to page 6.)

76. Do members of your family consider your rights as much as your friends do? 76
77. Do you sometimes have nightmares (frightening dreams that waken you)? 77
78. Do you become more nervous when at home? 78
79. Are your nerves ever raw or on edge? 79
80. Do you disagree with your parents about your choice of a vocation? 80
81. Do you like discussions of the more serious questions of life with other persons? 81
82. Do you ever wish that you could change your height? 82
83. When in a new city, do you like to visit museums? 83
84. Do you always feel that you can achieve the things you wish? 84
85. Are you frequently restless when attending a lecture? 85
86. Do you become upset when you have to consult a physician for your illness? 86
87. Do you ever wish you had been born in a different family? 87
88. Would you rather watch sports or contests than participate in them? 88
89. Does either of your parents often find fault with your actions? 89
90. Do you often feel blocked because you are unable to do as you desire? 90
91. Are there many jobs you would not accept because they are beneath you? 91
92. Can you generally have a really hilarious time at a gay party? 92
93. Is the other fellow usually at fault when you have an argument? 93
94. Do you converse much with clerks who wait on you? 94
95. Do you become impatient if waiting for other persons? 95
96. Do you feel few obstacles can hinder you from achieving your final goal? 96
97. Do you enjoy time alone with your thoughts? 97
98. Do you often have the blues? 98
99. Do you have philosophical leanings? 99
100. Are you generally confident of your own ability? 100

(Go right on to page 7.)

101. Do you ever have contradictory moods of love and hate for one of your family? 101
102. Are you often in a meditative state? 102
103. Is your greatest obligation to your own family? 103
104. Do you have to alter your body position frequently while sitting? 104
105. Is (was) your mother dominant in the family? 105
106. Do you ever feel that in life's competition you are generally the loser? 106
107. Do you enjoy solving brain teasers? 107
108. Do you frequently feel unworthy? 108
109. Do you critically evaluate the structure of novels and movies? 109
110. Do you worry over humiliating situations more than most persons? 110
111. Are you embarrassed if you arrive too early or too late at a social engagement? 111
112. Have the actions of one of your parents ever caused you great fear? 112
113. Do you often feel listless and fatigued for no apparent reason? 113
114. Does your family have as much fun together as you would like? 114
115. Do you think you are a tense person? 115
116. Are you willing to permit others to hesitate or consider before they act? 116
117. Do others judge you a lively individual? 117
118. Do you usually find it easy to form new acquaintances? 118
119. Are there times when everything seems to go against you? 119
120. Are you usually pleased to be in the limelight at social affairs? 120
121. If you could go into a theater without paying and be undetected, would you do it? 121
122. Are you frequently troubled by thoughts of self-guilt? 122
123. Do you enjoy discussing an ideal society or Utopia? 123
124. Does it disturb you to be "different" or unusual? 124
125. Do you prefer biographical movies to those of the musical comedy type? 125

(Go right on to page 8.)

126. Do others ever whisper or exchange knowing glances when you seem not to be noticing them?	Page 8 126
127. Do you often hesitate about meeting important persons?	127
128. Do you tend to be shy with the opposite sex?	128
129. Do others deliberately seek to annoy you?	129
130. Would you prefer to be a scientist rather than a politician?	130
131. Do you find it hard to continue work when you do not get enough encouragement?	131
132. Are you more of a practical individual than a theorist?	132
133. Are you bothered by inferiority feelings?	133
134. Would you rather have a theory explained than study it out yourself?	134
135. Are you inclined to let people dominate you too much?	135

Important! Before starting page 9, turn the answer sheet upside down. Then continue with item No. 136, which will be in the upper left-hand corner of the answer sheet.

(Go right on to page 9.)

136. Do your parents too frequently expect you to obey, though you are grown up?	Page 9 136
137. Do you often tell your troubles to others?	137
138. Do you talk over important plans with your family?	138
139. Are you frightened to be alone in the dark?	139
140. Have you ever had an urgent desire to run away from home?	140
141. Is the application of principles more interesting than the theoretical evaluation of them?	141
142. Are there some people you dislike?	142
143. At a party is it easy for you to be natural?	143
144. Does it ever seem that everyone is working against you?	144
145. Do you converse much with strangers when on a journey?	145
146. When disturbed or upset, do you tend to suffer from indigestion or other distress?	146
147. Do you have more love for your mother than for your father?	147
148. Are your feelings rather easily hurt?	148
149. Are your parents too old-fashioned in their beliefs and ideas?	149
150. Can you relax yourself easily?	150
151. Do you like using leisure time in creative writing (poetry, stories, etc.)?	151
152. Have you often wished that your appearance were different?	152
153. Would you rather work outdoors than indoors?	153
154. Do you often pause just to meditate about things in general?	154
155. Do you frequently show yourself up disadvantageously?	155
156. Do you usually let others have their own way, even at the expense of your own satisfaction?	156
157. Are your friendships limited primarily to members of your sex?	157
158. Do you often get into difficulties which you did not seek to cause?	158
159. Do you like to be in a crowd just to be with other people?	159
160. Are there many persons who do not care to associate with you?	160

(Go right on to page 10.) ➡

161. Are there certain things about some of your family which definitely annoy you?	Page 10 161
162. Are your spirits usually on a rather even keel?	162
163. Would you be willing to give up everything for your family?	163
164. Do you sometimes think the world is distant and dreamlike?	164
165. Are there some rather serious handicaps in family life?	165
166. Can you become so enthusiastic your spirit generates enthusiasm in others?	166
167. Do you feel people frequently misunderstand what you mean?	167
168. Are you hesitant to seek assistance from others?	168
169. Do you dislike being kidded about your little oddities?	169
170. Can you express yourself better in speech than in writing?	170
171. Is your mood easily governed by your associates — i.e., by others who are happy or sad?	171
172. Have your parents been too strict with you?	172
173. Do you ever laugh at a dirty joke?	173
174. Does a sudden stimulus startle you easily?	174
175. Do you think there have been too little affection and love in your home?	175
176. Do you like to read criticisms of articles or books you have previously read?	176
177. Does your family believe you are as much a success as you could be?	177
178. Do you find pleasure in solving intellectual problems?	178
179. Is it generally hard for you to reach decisions?	179
180. Do you enjoy work that needs very little thought after it is learned?	180
181. When driving, does it bother you considerably to get caught in slow traffic?	181
182. Do you generally take the lead in making new friends?	182
183. Do others often try to get credit for things you have achieved?	183
184. Do you enjoy mixing socially with others?	184
185. Are you constantly comparing yourself with others?	185

(Go right on to page 11.) ➡

186. Do you and your parents exist in different worlds, as far as ideas are involved?	Page 11 186
187. Do you tend to deliberate over your past?	187
188. Do you like all the persons in your family just about equally well?	188
189. Do you blush readily?	189
190. Are your relatives as likable and attractive as those of your friends?	190
191. When traveling, are you more interested in new things and places than in new people?	191
192. Are you frequently irritated by minor annoyances?	192
193. Do you ever need to conquer bashfulness?	193
194. Do you ever feel flattered because you know an important person?	194
195. Have you ever been the life of the party?	195
196. Have you often had to remain quiet or leave the house to have peace at home?	196
197. Do thunder and lightning make you frightened?	197
198. Do you usually have better times at places away from your home?	198
199. When upset emotionally, do you take much time to recover composure?	199
200. Is your father your ideal of manhood?	200
201. Can you play your best in a contest against an opponent much better than you?	201
202. Are you usually carefree?	202
203. Do you sometimes feel isolated and alone when in a group of people?	203
204. Do you tend to be introspective — that is, self-analytical?	204
205. Are you always ready to decide what your next step should be?	205
206. Do others sometimes offend you unwittingly because you cover your feelings?	206
207. Do others often tell you about their personal family problems?	207
208. Have you ever been seriously double-crossed?	208
209. Do you tend to remain quiet in a social group?	209
210. Do you sometimes become irritable when not feeling well?	210

(Go right on to page 12.) ➡

211. Have you ever observed a vague feeling of uneasiness without knowing why?	Page 12 211
212. Do you feel you have been bossed too much?	212
213. Do you ever feel like swearing?	213
214. Do you ever have thoughts too bad to tell others?	214
215. Has either of your parents any personal traits that annoy you?	215
216. If a person goes out of his way to be nice, do you look for his real reasons?	216
217. Have you learned to pay compliments readily when they are deserved?	217
218. Do others frequently blame you for things unjustly?	218
219. Have you been concerned about being shy?	219
220. Are you inclined to be radical in your religious or social attitudes?	220
221. Have you often argued with your parents about how to do work around home?	221
222. Do you often find difficulty in sleeping even though tired?	222
223. Have your parents often objected to the companions you choose?	223
224. Are you readily moved to tears?	224
225. Is your family too curious about your private affairs?	225
226. Would you rather keep your radio on a symphony than turn to popular music?	226
227. Can you adjust yourself readily to new conditions or situations?	227
228. Do you like work involving a great amount of attention to details?	228
229. Do you often feel rather awkward?	229
230. Do you prefer one long complex problem to several simpler ones?	230
231. Are some persons so bossy you like to do just the opposite of what they ask?	231
232. Would you rather visit with only one person than with a group?	232
233. Has lack of money robbed you of opportunities for real success?	233
234. Are people generally interested in your activities?	234
235. In group activity are you often forced to take an insignificant role?	235

(Go right on to page 13.)

236. When a critical situation is past, do you often think what you should have done but didn't?	Page 13 236
237. Is either of your parents a very nervous person?	237
238. Are you often in a mood of excitement?	238
239. Is either of your parents easily upset?	239
240. Are you often too conscientious?	240
241. Do you become uneasy when waiting for a slow person to finish a task?	241
242. Do you like to entertain people?	242
243. Have some persons unfairly criticized you to others?	243
244. Do you frequently feel ill at ease with others?	244
245. Do other persons often misunderstand your real intentions?	245
246. Do your parents fail to recognize your maturity and still treat you as a child?	246
247. Does the idea of a fire or an earthquake frighten you?	247
248. Do you often think your parents misunderstand you?	248
249. Are you so frequently on the go that you keep yourself worn out?	249
250. Have you had many unpleasant disputes with your brothers or sisters?	250
251. Could you become so absorbed in creative activity that you would not need close friends?	251
252. Do you often fear other persons will dislike you?	252
253. Can you enjoy an evening alone?	253
254. Do you frequently feel conspicuous in a group?	254
255. Do you often analyze other persons' motives?	255
256. In social conversation, are you customarily more of a listener than a talker?	256
257. Are there some personal things about which you are rather touchy?	257
258. Do you like to take charge of group activities?	258
259. Are you considered critical of others?	259
260. Can you usually find a ready answer for remarks made to you?	260

(Go right on to page 14.)

- Page 14
261. At a banquet, would you do without something rather than ask to have it passed? 261
262. Do you tune the radio away from quiz programs? 262
263. Do you ever put things off when they should be done at once? 263
264. Are you generally not concerned about the future? 264
265. Have most persons made a better life adjustment than you? 265
266. Do you ever wish to move elsewhere because of too few congenial people where you are? 266
267. Are you usually indifferent to the opposite sex? 267
268. Do you find it hard to start conversations with strangers? 268
269. Do you often feel people are watching you on the street? 269
270. Do you think social affairs are often a waste of time? 270

A	-	S	-	E	-	
C	-	P	-	H	-	
Score	%ile	Score	%ile	Score	%ile	

HESTON PERSONAL ADJUSTMENT INVENTORY

①

②

Page 14	Page 13	Page 12	Page 11	Page 10	Page 9
261 YES NO	261 YES NO	261 YES NO	261 YES NO	261 YES NO	261 YES NO
262 YES NO	262 YES NO	262 YES NO	262 YES NO	262 YES NO	262 YES NO
263 YES NO	263 YES NO	263 YES NO	263 YES NO	263 YES NO	263 YES NO
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267 YES NO	267 YES NO	267 YES NO	267 YES NO	267 YES NO	267 YES NO
268 YES NO	268 YES NO	268 YES NO	268 YES NO	268 YES NO	268 YES NO
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299 YES NO	299 YES NO	299 YES NO	299 YES NO	299 YES NO	299 YES NO
300 YES NO	300 YES NO	300 YES NO	300 YES NO	300 YES NO	300 YES NO

KIND OF PERCENTILE NORMS USED

- _____ 1. H. S. Seniors M F
 _____ 2. Coll. Fresh. M F
 _____ 3. _____ M F

HESTON
PERSONAL ADJUSTMENT INVENTORY

Manual

By

JOSEPH C. HESTON, PH.D.

Director of Bureau of Testing and Research
and Associate Professor of Psychology
DePauw University, Greencastle, Indiana

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HESTON PERSONAL ADJUSTMENT INVENTORY

Manual

PURPOSE OF THE INVENTORY

The busy professional counselor and the guidance-minded classroom teacher have indisputable need for assistance in evaluating the various facets in the personalities of their counselees and students. Knowledge of the counselee's ability level and interest pattern alone will not explain all the complex ramifications of individual behavior. The way the student feels about himself, the reaction tendencies he follows in dealing with others, his capacity to meet emotional stress — these are all essential components in the modification of his total behavior and achievement. Fully to appraise the complete individual, therefore, one must of necessity include the pertinent personality factors in the equation. The Personal Adjustment Inventory has been designed to assist in this process. It does not purport to give a final or irrevocable solution to the assessment of personality, but it does provide in convenient, accessible form a significant preliminary summarization of certain traits, thus giving the counselor or teacher a basis for further personalized evaluation of the individual.

The author is well aware of many of the criticisms often leveled against personality questionnaires. Ellis (8)¹ has performed a useful service in collating many of these objections. The present Inventory meets many of the more fundamental criticisms and is thus freer of basic faults than many of its predecessors in this field of measurement. While no instrument can overcome all the possible errors with which personality inventories have been charged, it is the writer's firm persuasion that such tests do have valuable practical utility and that most forward-looking counselors would rather use a tool with some admitted difficulties than rely solely on subjective judgment, rationalizing the process by refusing the available instruments on the grounds that they are not yet perfected.

This Personal Adjustment Inventory is, therefore, offered as an objective means of getting at six basic components of an individual's adjustment. It is usable with students from high school freshman age to mature adults. Norms are provided for both high school and college groups. Separate adult norms, of non-college type, are not available, but trends observed in the standardization data suggest that this may be unnecessary. All the norms have been built on unselected student groups, presumed typically normal in adjustment; hence all scores are in terms of comparison to high school and college populations in general. Three years of research, involving three successive item-validation studies and the analysis of over 4200 different test papers, supply appreciable evidence of the methodological care used in construction of the Inventory. Clinical experience with many individual cases during the last three years has demonstrated the value of the Inventory approach, both to the author and to numerous visiting counselors on the staff of DePauw's Educational Guidance Clinic, held annually each June.

¹ Italic numbers in parentheses, as in this case, refer to entries in the Bibliography at the end of the Manual.

To summarize and also to anticipate material to be amplified later, we feel the present Inventory will prove useful in student personnel work for the following specific reasons:

- (1) It measures six important traits of personal adjustment.
- (2) These traits are well established and easily interpreted.
- (3) It was constructed through a continuous long-term research program.
- (4) It affords adequate statistical reliability of measurement.
- (5) Validation has been carried out by several methods. The Inventory has been validated both statistically and in actual clinical use.
- (6) It is usable at either college or high school level.
- (7) Stable and representative norms are provided.
- (8) It is simple to administer and convenient to score.

NATURE OF THE INVENTORY

CONTENT

The Inventory comprises a list of 270 questions, to which the person tested is asked to answer "Yes" or "No." He is permitted to indicate those questions to which he is unable to settle on a "Yes" or "No" answer. The questions deal with six aspects of adjustment, designated as follows:

- A—Analytical Thinking
- S—Sociability
- E—Emotional Stability
- C—Confidence
- P—Personal Relations
- H—Home Satisfaction

These six traits are described in detail in succeeding paragraphs. (See section on "The Inventory Scales," on pages 14-17.)

NATURE OF THE SCORES

The scoring is on a simple unweighted basis, with ready conversion into adequate percentile-norm equivalents. High scores indicate possession of much of the trait measured and are, in general, preferable, since high scores tend to represent good adjustment and low scores poor adjustment. No item contributes to more than one trait scale; hence any observed relationships between the various scores are genuine in so far as they are derived from separate measures. The items from the various scales are systematically scattered throughout the test to help conceal the identity of the basic traits being investigated. The item arrangement, however, still permits convenient grouping of questions to facilitate scoring.

GENERAL FEATURES

ANSWER SHEETS

Separate answer sheets are available on which the individual being tested indicates his responses to the questions. These answer sheets may be scored either by hand or by the use of the International Business Machines scoring machine. An alternative procedure is to detach and use the answer sheet which is provided in the test booklet. These detachable

answer sheets, however, are suitable for hand scoring only. They cannot be scored by machine, and even when the inventories are to be scored by hand, use of the separate answer sheet is recommended in preference to the answer sheet in the booklet, since the former is slightly more convenient to use and score.

The answer sheet contains, for every question, a row consisting of the question number and two spaces (one for answering "Yes" and one for answering "No"). For instance, for question 61 the row would appear as follows:

61 YES NO

If the student wished to answer "Yes" to this question, he would mark the "Yes" space, thus:

61 YES NO
 —.....

ARTICULATION OF TEST BOOKLETS AND ANSWER SHEETS

The test booklet and the answer sheet are so organized that each question in the booklet is lined up directly with the answer spaces in which the student is to mark his response. This device insures that the student will not mark his answer in the wrong row.

TIME REQUIRED FOR TEST

The test is administered without time limits. This makes it very simple to administer and has the further advantage of insuring that everyone will be able to finish. In the average situation, where students proceed at a fair rate, the majority will finish in forty to fifty minutes.

KEYS

Separate keys are provided for hand scoring and for machine scoring. The keys for hand scoring are included in the test package. If the answer sheets are to be scored by machine, two keys (a Rights Key and an Item-Elimination Key) must be purchased separately, since the keys included in the test package are not suitable for machine scoring.

MACHINE SCORING

As indicated above, the Inventory may be scored by the International Test Scoring Machine. For this purpose the separate answer sheet and special machine-scoring keys must be used. It is also necessary when the answer sheets are to be machine scored that they be marked with pencils containing a special kind of very soft lead. These special pencils, containing the electrographic lead, may be procured from International Business Machines Corporation, 590 Madison Avenue, New York 22, N. Y.

SIMPLICITY OF SCORING

The test is extremely easy to score, either by hand or by machine. The keys are of the convenient stencil type. This means that for hand scoring it is only necessary to place the key over the answer sheet and count the number of marks that can be seen through the holes of the key. The two hand-scoring keys each give scores on three different scales. Scoring by machine is even quicker, since all six scores are obtained at the same time

(by a single insertion of the answer sheet in the machine). It is worth noting that this simplicity of scoring has been achieved without any sacrifice of validity. In other words, it was considered desirable in the interests of validity to intermingle the items from the various scales, so as to conceal more completely the identity of the traits being measured, and it was possible to set up an efficient scoring system (i.e., all six scores at one insertion) without departing from this principle.

DIRECTIONS FOR ADMINISTERING

RECOMMENDED PROCEDURE

(For administration with separate answer sheet)

1. Distribute the booklets and answer sheets to the students.
2. Each student should have a pencil and an eraser. If it is planned to score the tests by machine, each student should be given a special pencil containing electrographic lead. (See first paragraph on "Machine scoring of separate answer sheet," page 7.)

3. Say to the students:

"This questionnaire is not like the ordinary test in which you are asked to show what you *know*. We are interested here in how you *feel* about many questions in everyday life. As we read together the directions on the first page of the booklet, you will understand this more fully."

4. Read all the directions on the title page aloud with the class.

5. Then say:

"Now notice the separate answer sheet that has been given you. You are to place all your answers on this answer sheet; do not mark the questionnaire booklet in any way. Now fill in all the blanks at the top of the answer sheet, giving your name, today's date, your age, etc. *Print* this information accurately and clearly. Put it on both the front and the back of the answer sheet. Do not proceed with the questions in the questionnaire until I tell you to do so."

6. Allow time to fill in the blanks. Then say:

"After you have filled out all the blanks on both sides of the answer sheet, be sure it is turned with the answer space side face up."

7. Demonstrate how to place the answer sheet. Then say:

"Turn to page 3 of the booklet. Fold the cover page back underneath the rest of the booklet, so that only page 3 shows. Slip the answer sheet under the edge of page 3 so that the column of spaces marked 'Page 3' is alongside page 3, like this."

8. Demonstrate how to place the answer sheet. Then say:

"Notice that the arrow tips on the answer sheet point directly toward the arrow tips on page 3. When you have finished page 3, turn to page 4 and fold the page back under the rest of the booklet, so that page 4 is the only page showing. Then slip the answer sheet under the booklet in such a way that the column of answer spaces for page 4 matches the

questions for page 4. Again adjust the position of the answer sheet so that the arrow tips on it are lined up with those on page 4 of the booklet. Do each succeeding page in the same way. Note that when you have finished page 8 you will have to turn the answer sheet upside down before starting page 9."

9. If the tests are to be machine scored, read the following paragraph. Do *not* read it if the tests will be scored by hand.

"Mark all answers with the special pencil which you have been given. Use solid black marks to indicate your answers, and be sure your marks are the same length as the pair of dotted lines. In order to be sure that your pencil marks are sufficiently heavy and black, it is well to go back and forth over each mark two or three times, pressing firmly with the pencil. Be sure not to make any unnecessary stray pencil marks on the answer sheet — no matter how light and inconspicuous these marks may be. It is especially important that no stray marks be put on or near the answer spaces."

10. Continue here, regardless of whether the tests are to be machine scored or hand scored:

"If you should wish to change an answer after you have recorded it, be sure to erase it completely; do not ever try to cross out an answer. There is no time limit, but we do want you to work rather rapidly. Read each question and decide upon an answer without much hesitation or deliberation. Do not omit any more questions than you can possibly help; it will be better to answer every one, if you can. Remember that if you feel you can't possibly answer 'Yes' or 'No' to a question, you should fill in the circle which surrounds the question number. Now review the summarized directions at the top of page 3 and proceed with the test."

(For administration with detachable answer sheet)

1. Distribute the booklets to the students. Each student should also have a pencil and an eraser.

2. Say to the students:

"This questionnaire is not like the ordinary test in which you are asked to show what you *know*. We are interested here in how you *feel* about many questions in everyday life. As we read together the directions on the first page of the booklet, you will understand this more fully."

3. Read all the directions on the title page aloud with the class.

4. Then say:

"Now notice that the answer sheet for this questionnaire has been printed as pages 2 and 15 of the booklet."

5. While reading the next sentence, demonstrate the way to detach the answer sheet from the booklet.

"Grasp these front and back pages together in one hand and, holding the rest of the booklet in your other hand, carefully *pull* the answer sheet pages off the booklet, being careful to keep the answer sheet in *one piece*."

6. Continue reading:

"You are to place all your answers on this answer sheet; do not mark the test booklet in any way. Now fill in the blanks in the upper left corner of the answer sheet, giving your name, today's date, your age, etc. *Print* this information accurately and clearly. Do not proceed with the questions in the questionnaire until I tell you to do so."

7. Allow time to fill in the blanks. Then say:

"Slip the answer sheet under the edge of page 3 so that the column of spaces marked 'Page 3' is alongside page 3, like this."

8. Demonstrate how to place the answer sheet. Then say:

"Notice that the arrow tips on the answer sheet point directly toward the arrow tips on page 3. When you have finished page 3, turn to page 4 and fold the page back under the rest of the booklet, so that page 4 is the only page showing. Then slip the answer sheet under the booklet in such a way that the column of answer spaces for page 4 matches the questions for page 4. Again adjust the position of the answer sheet so that the arrow tips on it are lined up with those on page 4 of the booklet. Do each succeeding page in the same way. Note that when you have finished page 8 you will have to turn the answer sheet upside down before starting page 9."

9. Make certain that everyone has understood the directions. Then say:

"If you should wish to change an answer after you have recorded it, be sure to erase it completely; do not ever try to cross out an answer. There is no time limit, but we do want you to work rather rapidly. Read each question and decide upon an answer without much hesitation or deliberation. Do not omit any more questions than you can possibly help; it will be better to answer every one, if you can. Remember that if you feel you can't possibly answer 'Yes' or 'No' to a question, you should fill in the circle which surrounds the question number. Now review the summarized directions at the top of page 3 and proceed with the test."

GENERAL DIRECTIONS FOR THE EXAMINER

Since this is not a "knowledge test" the examiner may, if necessary, help interpret the meaning of a question to a student who requests it. However, the vocabulary has been kept as simple and clear as possible so that this is usually not necessary. The examiner may find that if he encourages students to request much further clarification of questions, they will require an unduly long period to take the test. As has been indicated, in the average situation the majority of students will finish in forty to fifty minutes.

DIRECTIONS FOR SCORING

GENERAL DIRECTIONS FOR SCORING

The separate answer sheet may be scored either by hand or by use of the International Test Scoring Machine. The attached answer sheet can be scored only by hand. Different scoring keys are necessary for the machine and hand methods, but the general principle is the same and the raw scores derived by the two methods are identical. Under either method an answer to any item is scored as one point on its appropriate scale if it agrees with the answer ("Yes" or "No") descriptive of that scale's characteristics. Answers which are the opposite of the scored responses and omitted questions are not counted in the scoring. For instance, if "No" is the key response to a particular question, an individual who answers that question "No" is credited with one point; an individual who omits the question or answers "Yes" receives no credit for it.

Before any scoring is done the answer sheets should be inspected to determine the number of omitted items and/or double-marked items. If any double-marked items (i.e., items which have been answered both "Yes" and "No") are found, both answers should be erased and the item counted as omitted.

The count of omitted items should include both unanswered items for which the item number circles have been filled in and items which were double-marked. If there are more than twenty omitted items in all, the student should either retake the test or reconsider the omitted questions and reach definite answers on most of them. Otherwise the scores on all scales will be artificially lowered and thereby invalidated.

Of the 270 items, 261 are used in obtaining the scores on the six Scales A S E C P H. The remaining nine items are not used on the keys for these scales; most of these nine items, however, enter into the scores on the special research scales discussed on pages 32-33 of this Manual.

OBTAINING AND RECORDING RAW SCORES

The scores obtained from the keys are raw scores. They should be recorded on the answer sheet in the left halves of the boxes which appear in the upper right corner of the answer sheet. (The right halves of the score boxes are to be reserved for the recording of percentile scores.)

The order in which the scores for the various scales are obtained is as follows:

For machine scoring: A C S P E H

For hand scoring (with either answer sheet): A S E C P H

(Machine scoring of separate answer sheet)

Before they are scored, all answer sheets should be scanned for stray pencil marks (which should be erased) and for answer marks which are not sufficiently long or dark (these should be darkened with an electrographic pencil). It will be found convenient to do this preliminary inspection at the same time the answer sheets are inspected for double-marked items and omitted items (as recommended under "General Directions for Scoring" above).

To score the test on the International Test Scoring Machine, two keys are necessary — a Rights Key and an Item-Elimination Key. These keys must be purchased separately, since the keys which are included in the test package are not suitable for machine scoring.

The scores on all six scales may be obtained with only one insertion of the answer sheet in the machine. The method of setting up the machine, the steps for checking its operation, and the actual mechanics of operation are not discussed in this Manual, since it is assumed that anyone who scores the Inventory by machine will be familiar with the machine and its operation.

The field holes punched on the Item-Elimination Key for each of the six scales are as follows:

CONTROLS	R	W
A	Scale A	Scale C
B	Scale S	Scale P
C	Scale E	Scale H

The procedure recommended for setting switches so as to obtain all six scores by machine with optimum efficiency, in the order A C S P E H, is as follows:

1. To obtain score on Scale A (Analytical Thinking):
Set Master Control Switch at A; set the three Formula Switches at R.
2. To obtain score on Scale C (Confidence):
Change A Formula Switch setting from R to W.
3. To obtain score on Scale S (Sociability):
Change Master Control Switch setting from A to B.
4. To obtain score on Scale P (Personal Relations):
Change B Formula Switch setting from R to W.
5. To obtain score on Scale E (Emotional Stability):
Change Master Control Switch setting from B to C.
6. To obtain score on Scale H (Home Satisfaction):
Change C Formula Switch setting from R to W.

The recommended switch settings may be summarized as follows:

SCALE	NAME OF SCALE	SWITCH SETTINGS			
		MASTER CONTROL SWITCH	FORMULA SWITCHES		
			A Formula Switch	B Formula Switch	C Formula Switch
A	Analytical Thinking	A	R	(R)	(R)
C	Confidence	A	W	(R)	(R)
S	Sociability	B	(W)	R	(R)
P	Personal Relations	B	(W)	W	(R)
E	Emotional Stability	C	(W)	(W)	R
H	Home Satisfaction	C	(W)	(W)	W

The raw scores obtained on the machine should be recorded in the appropriate spaces in the upper right corner of the answer sheet.

(Hand scoring of separate answer sheet)

Two hand-scoring keys (Key 1 and Key 2) are included in each test package. These keys are stencils perforated in such a way that when they are superimposed on the answer sheets the scorable responses for each scale show through and may thus be counted.

Key 1 yields scores for Scales A, S, and E, while Key 2 is used to obtain scores on Scales C, P, and H.

Notice the two circles with plus signs in them (⊕) on the answer sheet. One of these symbols is near the upper right corner of the answer sheet; the other is near the center of the bottom edge. To obtain the scores for Scales A, S, and E, superimpose Key 1 over the answer sheet in such a way that the two ⊕ symbols show through the corresponding index holes on the key; the key will then be adjusted so that all the holes and answer spaces are correctly aligned. To obtain the score on Scale A, count the number of answer marks that show through the scoring stencil in the sections marked "A." Likewise obtain the scores on Scales S and E, using the appropriately labeled sections of the scoring stencil. Note that on the key all the sections for a given trait have the same crosshatching. The scores for Scales C, P, and H are obtained in the same way, using Key 2 instead of Key 1. These raw scores should be recorded in the appropriate spaces in the upper right corner of the answer sheet.

A second counting is always advisable to verify the accuracy of the originally recorded scores.

(Hand scoring of detachable answer sheet)

The same keys are used for hand scoring the answer sheets detached from the test booklet as for the separate answer sheet. The procedure for the detachable answer sheet is the same as for the separate answer sheet except for the method of adjusting the key over the answer sheet.

Notice the two circled I's and the two circled II's on the detachable answer sheets. Notice also that the left halves of the two keys are marked "When detachable answer sheet is used, place key so that I's show, to score this half." Likewise the right halves of the key are marked "When detachable answer sheet is used, place key so that II's show, to score this half."

This means, for instance, that to obtain the score on Scale A, Key 1 should first be adjusted so that the I's show through the two index holes; the answer marks that show through on the two sections marked "A" on the left half of the key should then be counted; then move the key about 1½ inches to the right so that the II's show through and *continue* the count of answer marks, this time counting only the marks on the section in the right half marked "A." This method, of course, yields the final score on Scale A (the sum of the scores on the left and right halves of the answer sheet). Scores on Scales S and E are obtained in the same way, using the appropriate sections of Key 1; likewise the C, P, and H scores are obtained from Key 2.

These raw scores should be recorded in the appropriate spaces in the upper right corner of the answer sheet.

A second counting is always advisable to verify the accuracy of the originally recorded scores.

CONVERSION TO PERCENTILES

After a paper has been scored, the *raw* scores thus obtained must be converted into their percentile equivalents before interpretation. The appropriate norm table should be selected from among Tables 1-4 (pages 20-23 of this Manual), according to the student's sex and the type of school (college or high school). When this norm table is entered with the given raw score (found in either margin of the table), the percentile value will be indicated in the body of the table under the appropriate scale column. For example, a college man who has a raw score of 27 on Scale A has, according to Table 1, a 61 percentile rank on A. Or, as another sample, it will be seen that a high school girl whose raw score on C is 31 will have a percentile rank of 88 on C, according to Table 4.

The percentile equivalents for each scale should be entered in the designated spaces in the scoring box in the upper right corner of the answer sheet, preferably in a different color from the raw scores. If a profile chart is to be filled out, the raw scores should be transferred to the appropriate boxes at the top of the profile chart and the percentile equivalents recorded directly below them. In this event it is not necessary to record the percentiles on the answer space side of the sheet.

It is desirable to check all transfers of score and all percentile conversions, in order to insure accuracy.

USE OF THE PROFILE CHART

Counselors often find it advantageous to be able to depict test scores graphically as a visual aid in interpretation. This procedure may prove desirable either to permit the counselor himself to see the student's adjustment pattern more clearly or to enable the counselor to utilize this technique in discussing the results with the student. To meet this requirement, a Profile Chart has been prepared for this Inventory and printed on the reverse side of each separate answer sheet. It also appears on the last page of the test booklet, for the benefit of those who use the detachable answer sheet in the booklet. The six scales (ASECPH) have been identified on this profile by their initial letters only, to prevent the examinees from realizing in advance the nature of the traits covered by the inventory. Spaces have been provided for the recording of raw scores and percentiles on the profile. The Profile Chart is illustrated in Figures 1, 2, and 3 (pages 12-14).

FILLING OUT THE PROFILE CHART

To prepare the Profile Chart for an individual student, one should first enter the raw scores in the appropriate boxes at the top of the chart, and then convert them to their percentile equivalents, which should also be recorded. Table 1, 2, 3, or 4 (whichever one is the most appropriate) should be used for this conversion. The type of norms used should be indicated at the bottom. For instance, if the norms for college men are used, a check mark (✓) should be put on the line at the left of the words "Coll. Fresh.," and the letter "M" to the right of it should be encircled to indicate that the norms used are those for men. Next, plot the percentile value on each

scale by placing a small dot on each of the vertical lines (for the separate scales) at the height corresponding to the indicated percentile rank as calibrated along the margin of the chart. The profile is then completed by drawing a line connecting all the dots for the six scales.

INTERPRETING THE PROFILE CHART

Two things should be noted in the interpretation of the Profile Chart in addition to the principles discussed in the "Interpretation of Scores" section of this Manual (pages 17-18). First, it will be observed that the percentile calibrations along the margins of the chart are not equally spaced. The reason for this is that our marginal scale has been drawn in such a way as to take account of the fact that in traits which are normally distributed, small variations around the average are much more common and less significant than variations of the same magnitude at the extremes. For instance, the *real* difference between the 90th and 95th percentiles is actually more significant than the difference between the 50th and 60th percentiles, even though the latter difference seems twice as large numerically (in terms of percentile points). The scale in the Profile Chart is designed to give a truer representation of the relative degree of variation indicated by the various percentile scores than would be obtained if the percentiles were spaced at equal distances.

The second factor to note is the order used in grouping the traits. In a later section of this Manual (see Table 14) it is pointed out that scales "E," "C," and "P" are often closely related. A lesser positive relation exists between "P" and "H," and another minor relation appears between "S" and "E." Scale "A" shows little relation to any of the other five scales. The traits are therefore arranged on the Profile Chart so that the ones most often positively related to each other are portrayed side by side. This placing of appropriate traits adjacent to each other enables the counselor to see at a glance whether a particular individual's adjustment pattern follows the group trend or whether there are some noticeable unusual fluctuations in his profile.

SAMPLE PROFILES

Use of the profiles can best be exemplified by presentation of three case histories taken from the author's files. These cases have been selected to illustrate the potential sensitivity of the Inventory in a wide variety of situations.

Miss X, Mr. Y, and Miss Z entered DePauw University as freshmen in September, 1947, and went through the usual comprehensive testing and counseling services of the Bureau of Testing and Research. In each case the writer had considerable personal contact with both the students and their parents, as well as a great deal of biographical information about the students' backgrounds. One year later it was possible to check in terms of actual college performance the validity of the prognoses one would have derived from the Inventory at the time of these students' admittance to the University.

FIG. 1. Profile of Miss X

Miss X, whose profile is shown in Figure 1, presents a picture of excellent adjustment on all scales of the Inventory. She came from a good, comfortable home, with moderate income and intellectually superior parents. Her Ability Index (a composite score based on five hours of ability and achievement tests) placed her at the 87th percentile rank among her fellow freshmen. Personal adjustment, home background, and ability all indicated that the outlook for her college career was favorable. Miss X made a good social adjustment on the campus; she joined a congenial sorority and entered into a moderate number of campus activities. In her freshman year she had almost a perfect "A" grade-record, and she was elected as one of the outstanding members of the freshman scholastic honorary society. There is little doubt that Miss X will continue to display the same fine adjustment and achieve a similar excellent record in the next three years of college.

Mr. Y (see profile, Figure 2), on the other hand, illustrates one of the worst prognoses from the standpoint of personality adjustment, although home background and ability are relatively favorable. The Inventory diagnosis of multiple maladjustment trends was confirmed later by similar results on the Minnesota Multiphasic Personality Inventory, on which the student's scores denoted serious maladjustment on more than half the scales. Mr. Y's parents were both college graduates and in fairly satisfactory financial circumstances. One of his parents, however, did exhibit distinct symptoms of poor personal adjustment. Academically Mr. Y appeared a safe enough risk, since his "Ability Index" was at the 55th percentile rank and he had been in the top fifth of his high school class. Although not socially inclined, Mr. Y was inducted into the fraternity which members of his family had usually joined. Within two weeks after college started, he began to

FIG. 2. Profile of Mr. Y

exhibit definite overt manifestations of serious personality maladjustment. He was unduly irascible with his housemates, very erratic in class attendance and preparation, extremely gloomy and despondent, and desperately desirous of dropping college and either joining the army or simply going off on a hobo tour. His family and his fraternity brothers put pressure on him to settle down, but this merely aggravated his instability. Psychiatric assistance became necessary, and upon recommendation of college officials and the consulting psychiatrist he was withdrawn from school for more thorough psychotherapy. At this time it seems questionable that Mr. Y will ever overcome his personality handicaps sufficiently to succeed in college or in life to the extent that would be commensurate with his other capacities.

Miss Z's profile (Figure 3) displays minor fluctuations, coupled with one potentially serious area of maladjustment (i.e., Home Satisfaction). Her low rating in this area has since been demonstrated by clinical follow-up to be a factor which has handicapped her markedly in her college work. Her parents are wealthy and both have college training. Miss Z's "Ability Index" at the 98th percentile together with high school rank at the 95th percentile seemed to predict a brilliant academic year for her. However, at the close of the year Miss Z had earned a mediocre low "C" grade average; she had been given a "D" in the subject-matter area she had chosen as her probable major field. The contributory significance of the home factor was amply revealed in some half dozen conferences with Miss Z and several long-distance telephone conversations with her father, who also made two personal visits to the counselor's office. Miss Z's mother, highly dissatisfied by the daughter's failure to join a sorority and by early grade reports of only average

FIG. 3. Profile of Miss Z

work, began putting more or less continuous pressure on her. The more the mother complained and urged, the more rebellious and disturbed the daughter grew. The father seemed to have to spend much of his time trying to smooth over the mother-daughter controversy. This home situation, indicated at the outset by the Inventory, is to a large extent the underlying reason for Miss Z's level of achievement failing to be commensurate with her potentially exceptional ability. Since home friction is often a factor beyond the effective scope of college counselors, it is likely to continue to hamper Miss Z's further college career. She can and should graduate, but will neither enjoy college as much as she should nor attain the academic success that she might if the home adjustment were better.

THE INVENTORY SCALES

(A) ANALYTICAL THINKING

This scale, which was originally labeled "Intellectuality," parallels what has often been termed "Thinking Introversion." Scores on this scale are *not* synonymous with intelligence; hence "Analytical Thinking" has been selected as a more accurate designation. A study cited later does show "A" much more closely related to college aptitude and achievement than any of the other scales. A person high on "A" likes to be intellectually independent, thinks for himself, analyzes and theorizes a great deal, enjoys solving problems, likes carefully planned and detailed work, is persistent at tasks, and is serious (as opposed to casual). Low scores suggest an un-

critical acceptance of others' ideas, a willingness to avoid planning and thinking, and a dislike for creative or intellectual activities. "A" bears practically no relationship to any of the other five scales; it is a very independent measure. The following samples illustrate "A," with the scored answer indicated in parentheses:

60. Does conversation help you more than reading in formulating your ideas? (No)
262. Do you tune the radio away from quiz programs? (No)
109. Do you critically evaluate the structure of novels and movies? (Yes)
178. Do you find pleasure in solving intellectual problems? (Yes)
34. Do you do much thinking more than that needed by your work? (Yes)

(S) SOCIABILITY

High degrees of this trait indicate extroversion in the social sense. A person with a high "S" score is more interested in people than in things, he makes friends easily, converses readily and freely, feels he is a "lively" individual, enjoys social mixing, and frequently takes the lead in social participation. The low person is self-conscious, shy, and socially timid, has only a limited number of friends, and seeks the background on social occasions. He is the "introvert" who is lacking in social skills and/or inclinations. "S" is more nearly related to "C" than to any of the other scales. It is least related to "A." Sample "S" questions and answers are:

219. Have you been concerned about being shy? (No)
168. Are you hesitant to seek assistance from others? (No)
209. Do you tend to remain quiet in a social group? (No)
143. At a party is it easy for you to be natural? (Yes)
182. Do you generally take the lead in making new friends? (Yes)

(E) EMOTIONAL STABILITY

High scores here typify persons who can remain in stable and uniform spirits, are not subject to apprehensive fears or worries, are not easily upset or frustrated, can relax and avoid tension, and see life in reality rather than through daydreams and uneasy retrospection. People low on "E" are easily disrupted by minor crises, are readily embarrassed, often feel tired and listless, are too impulsive and jittery, frequently feel thwarted, and suffer often from tension, worry, and uneasiness. Extremely low scores may indicate the traditional "neurotic." Both "C" and "P" appear highly correlated with "E." There is good reason to believe this is a genuine association, since the items of each scale comprise relatively discrete varieties of behavior. Some sample "E" questions are:

187. Do you tend to deliberate over your past? (No)
62. Are you an impulsive individual? (No)
150. Can you relax yourself easily? (Yes)
2. Do you daydream often? (No)
61. Can you regain a state of calm easily after an exciting situation is over? (Yes)

(C) CONFIDENCE

Persons scoring high on "C" make decisions readily; feel sure of the value of their own judgment, adjust easily to new or difficult situations, feel they enjoy the approval and favor of their associates, face the present and future optimistically rather than linger regretfully over the past, lack inferiority feelings, and are not dissatisfied with their physique and appearance. A high positive relationship has been observed here between "C" and "E" (Emotional Stability), as shown in Table 14. People low on "C" distrust their ability, cannot make decisions satisfactorily, and display the traditional "inferiority complex." The following samples illustrate "C," with the scored answer indicated in parentheses:

152. Have you often wished that your appearance were different? (No)
 177. Does your family believe you are as much a success as you could be? (Yes)
 229. Do you often feel rather awkward? (No)
 32. Are you hesitant about forming decisions? (No)
 23. Can you face a difficult task without worry? (Yes)

(P) PERSONAL RELATIONS

High scores on "P" indicate two basic attitudes: (1) feeling that other people are trustworthy and congenial and (2) ability to refrain from annoyance and irritation at others' behavior. Thus one who is high on "P" does not feel slighted by others, does not feel they misunderstand him or cast him in an inferior role, is not too critical of others, does not lose patience readily, and is not angered too frequently or too easily. He can see things fairly and impersonally. Persons low on this scale are touchy, suspicious, and easily irked by other people. A very low score might be partially indicative of "paranoid" trends. Caution is needed in the interpretation of an individual's "P" score, because it has the lowest reliability¹ (.80) of any of the six scales. Some sample questions, with the high "P" answer shown, are:

257. Are there some personal things about which you are rather touchy? (No)
 235. In group activity are you often forced to take an insignificant role? (No)
 95. Do you become impatient if waiting for other persons? (No)
 67. Do you hesitate to accept new acquaintances as real friends? (No)
 167. Do you feel people frequently misunderstand what you mean? (No)

(H) HOME SATISFACTION

On "H" a high score denotes pleasant family relations, an appreciation of desirable home conditions, a feeling of mutual understanding and respect, freedom from emotion-breeding home conflicts, and a healthy recognition of one's obligation to home and family. At the low extreme we find admissions or complaints of such difficulties as wishing for a different home,

¹ See "Reliability," page 25.

feeling that enjoyment can be found only away from home, conflicts with parents' ideas, family not considerate, parents too strict, domineering, or unsympathetic, or parents overly irritated or emotional. Although composed of items correctly classifiable into a separate category, the "H" scale exhibits some positive correlation with all the other scales except "A." Sample "H" statements are:

37. Do you find less appreciation at home than elsewhere? (No)
 163. Would you be willing to give up everything for your family? (Yes)
 248. Do you often think your parents misunderstand you? (No)
 239. Is either of your parents easily upset? (No)
 138. Do you talk over important plans with your family? (Yes)

INTERPRETATION OF SCORES

In evaluating scores on the scales just described, one must observe three limitations to safeguard against certain pitfalls in interpretation. To use these personality scores wisely and appropriately, these factors should be remembered:

- (1) The norms used are based on so-called "normal" individuals — i.e., students who as a group are not expected to include many seriously abnormal folk. Within such groups there are definite and considerable variations and only a few persons are ever exactly average. Even considerable variation should not be construed as seriously unusual, because the norms simply reflect existing variation within typical representative samples of students. Hence one must set the critical scores well out to the extremes of the scales. Only the lowest (and, in certain cases, also the highest) two or three percentiles are far enough from the average to suggest possibly serious adjustment difficulties.
- (2) The scores depend on what the individual says (and is willing to say) about himself. By and large our experience has proved that most persons answer these questions in sincere and consistent fashion. Clinical interviews support the accuracy of tendencies revealed by these trait scores in a surprisingly large majority of instances. However, faked answers and careless answers also have been uncovered. In some cases exceptionally high scores may result when a student chooses the flattering answers, in an attempt to make himself appear much better than he really feels. The validity studies cited later indicate that in general the answers are measuring the tendencies claimed; yet in individual cases the counselor should seek corroboration of extreme scores and not accept the test results uncritically as complete and positive evidence.
- (3) In the scoring procedure only answers favorable to each scale description are scored. Thus, high scores mean the definite existence of a given pattern of answers. Low scores customarily mean the absence of this pattern and imply that opposite answers were selected. However, the omission of too many items will automatically tend to lower all trait scores. For this reason the counselor should not accept as valid any test paper where there are more than

about twenty questions which have not been answered "Yes" or "No." In such cases the student should retake the test and make a definite "Yes" or "No" choice for nearly all the questions. Answer sheets with an excessive number of unanswered questions can be spotted quite readily, since the instructions require the person tested to fill in the circle surrounding the question number whenever he cannot answer "Yes" or "No." Thus, in the case of any paper which appears to have an excessive number of filled-in question numbers, the scores should be considered of dubious validity.

THE NORMS

DEVELOPMENT OF THE NORMS

It is axiomatic that *raw* scores on any test have little or no interpretative significance. A well-chosen set of norms is the essential background against which one must evaluate the relative meaning of the scores of a given individual. The percentile norms now available for this Inventory (see Tables 1-4 on pages 20-23) afford reasonably stable standards for student populations compounded from cases tested at several representative educational institutions. The composition of the groups on which these norms are based is described in Table 5 (on page 24). In addition to the number of cases utilized in the preparation of the present norm tables, the author carried out earlier normative analyses of over 2300 additional test papers collected in the preliminary item-analysis research prior to the publication of the current edition of the Inventory.

In the task of compiling data from various schools to secure a representative cross section for each norm population, the author has enjoyed the cooperation of the several educational personnel officials gratefully acknowledged below.¹ At the college level the entire freshman class (September, 1947) was tested at each school shown in Table 5, except the University of Kentucky. This group of schools is representative of liberal arts colleges chosen to supply students of varying socioeconomic status and academic-aptitude levels. Shortridge High School is the only high school in Table 5 where the entire senior class (1947-48) was not tested; the Shortridge sample was composed of an alphabetically designated sample of seniors. Additional data for evaluation of upper-class college students (not used in the norms) were obtained both from DePauw University and the University of Kentucky. Further data on high school students (Grades 9, 10, and 11) were obtained from the Greencastle (Indiana) High School, where all students were tested at each grade level, the Mitchell (Indiana) High School, where all of Grades 11 and 12 were tested, and the Arsenal Technical Schools (Indianapolis), where some seniors were volunteer candidates for the test.

¹ The following persons generously cooperated in collecting the norm data: Dr. Carl Kardatzke, Anderson College; Dean Allen B. Kellogg, Indiana Central College; Dean Cora I. Orr and Dean Charles W. McCracken, Muskingum College; Dr. Lysle W. Croft, University of Kentucky; Dr. Fred W. Totten, Wabash College; Miss Elizabeth Daggy and Mr. Glenn Skelton, Greencastle (Indiana) High School; Dr. Austin A. Cole, Richmond (Indiana) Senior High School; and C. M. Keesling, Shortridge High School, and H. W. Walter, Arsenal Technical Schools, both of Indianapolis, Indiana.

INTERPRETATION OF THE NORMS

Certain generalizations about the Inventory norms appear to be suggested by the statistical data:

- (1) Small but persistent sex differences exist in the score distributions for each scale, particularly in scales "C," "S," and "E." Separate norms for the two sex groups have therefore been prepared.
- (2) More difference exists between college students (regardless of year of study) and high school students (regardless of grade) than between the grade levels within either college or high school. In other words, the difference between freshmen and seniors in high school, or freshmen and seniors in college, is smaller on the average than the difference between high school seniors and college freshmen. This is probably a function of the increase in selectivity of the college population in general. It has therefore seemed necessary to provide separate norms for college and high school. Since the fluctuations of distribution patterns within these two educational brackets are relatively small, it seems feasible to use college freshman norms for any year in college, and high school senior norms for any high school grade.
- (3) The college and high school norms are both based upon total distributions obtained from several schools. Some significant differences have been observed among the various schools contributing data. Therefore, while these norms may be taken as representative of college or high school students as a whole, yet it would appear wise for any school using the Inventory for a large group-testing program to check its own distributions for possible significant variations from the general norms.

BASIC TECHNICAL DATA

SOURCE OF ITEMS

The professionally trained counselor is well aware that most of the various published personality inventories contain a common core of items and areas that keep continuously reappearing. Many of these items are replicas or variations of questions first appearing in the original Woodworth *Personal Data Sheet* (20), prepared for use with soldiers in World War I. Many factor analyses and validation studies of personality test items have been reported in the literature by Bell, Guilford, Thurstone, McConnell and Evans, Darley, and McNamara, Flanagan, and others. The primary difference among many of the current personality inventories (including the present one) lies in the scoring, weighting, and validity of the items and traits being measured. Other important differences involve type and size of norm groups and the degree of caution with which authors have approached the crucial problems of interpretation and verification.

The present author has in the past six years carried out several inter-inventory correlational studies and factor analyses of existing tests in order further to identify traits measured in common by two or more of these published inventories. All of this research was designed to combine in one instrument the measurement of the several traits judged most useful in the evaluation of students' adjustment. From these analyses of the various

TABLE 1

PERCENTILE NORMS FOR THE HESTON PERSONAL ADJUSTMENT INVENTORY
COLLEGE FRESHMEN—MEN

(Norms based on 884 men from five colleges; tested in 1947)

RAW SCORE	Percentile Values						RAW SCORE
	A	S	E	C	P	H	
51							99
50							98
49							93
48							88
47							83
46							77
45							71
44							64
43			99				59
42			98				54
41		99	97	99			50
40		98	96	98			46
39		97	93	97			42
38	99	95	90	95	99		36
37	98	92	87	92	98		32
36	97	89	83	88	97		29
35	95	85	79	84	96		26
34	92	81	74	80	94	24	34
33	87	78	69	74	90	22	33
32	84	73	64	69	88	19	32
31	80	68	60	63	83	17	31
30	75	63	54	58	79	15	30
29	70	58	51	54	74	14	29
28	65	54	45	49	65	12	28
27	61	49	40	44	59	9	27
26	55	45	34	40	52	8	26
25	48	41	29	37	46	7	25
24	41	36	25	32	41	5	24
23	35	32	22	28	34	4	23
22	30	28	18	24	29	4	22
21	25	25	16	21	24	3	21
20	20	22	12	18	19	2	20
19	16	18	10	15	16	2	19
18	13	14	8	12	12	2	18
17	10	12	7	10	9	2	17
16	8	9	5	9	8	1	16
15	6	8	4	7	6	1	15
14	4	7	3	5	4	1	14
13	3	6	2	5	3	1	13
12	3	5	1	3	2	0	12
11	2	3	1	3	1		11
10	2	3	1	2	1		10
9	1	2	0	2	1		9
8	0	1		1	0		8
7		1		1			7
6		0		1			6
5				0			5

TABLE 2

PERCENTILE NORMS FOR THE HESTON PERSONAL ADJUSTMENT INVENTORY
COLLEGE FRESHMEN—WOMEN

(Norms based on 597 women from five colleges; tested in 1947)

RAW SCORE	Percentile Values						RAW SCORE
	A	S	E	C	P	H	
51							51
50							50
49							99
48							96
47							92
46							87
45							81
							75
44							68
43							61
42							55
41			99				49
40		99	98				44
							40
39		97	97	99			35
38	99	95	95	98			32
37	98	92	93	96	99		28
36	97	89	91	95	98		25
35	95	86	89	94	97		23
34	92	81	85	91	95	20	34
33	89	76	83	88	92	17	33
32	85	72	79	84	87	15	32
31	80	66	73	79	84	14	31
30	75	61	69	75	79	12	30
29	70	57	63	71	72	10	29
28	65	52	58	67	64	9	28
27	58	48	53	62	57	7	27
26	53	44	48	57	49	6	26
25	46	39	43	52	41	5	25
24	42	33	38	48	36	4	24
23	35	28	33	42	29	4	23
22	30	26	29	38	24	3	22
21	24	23	25	34	19	3	21
20	18	20	22	30	15	2	20
19	15	18	18	25	12	1	19
18	13	16	16	22	10	1	18
17	8	14	14	18	7	1	17
16	6	12	12	15	5	0	16
15	5	9	9	12	3		15
14	3	7	6	9	2		14
13	2	6	5	8	2		13
12	2	5	4	7	1		12
11	1	4	2	4	1		11
10	1	3	2	3	1		10
9	0	2	1	2	0		9
8		1	1	1			8
7		1	1	1			7
6		0	0	0			6

TABLE 3

PERCENTILE NORMS FOR THE HESTON PERSONAL ADJUSTMENT INVENTORY

HIGH SCHOOL SENIORS—MEN

(Norms based on 216 men from three high schools; tested in 1947)

RAW SCORE	Percentile Values						RAW SCORE
	A	S	E	C	P	H	
49							49
48							48
47							47
46							46
45							45
44							44
43			99				43
42			98				42
41			97				41
40			96				40
39		99	94	99		57	39
38		96	93	97		52	38
37		95	91	96	99	48	37
36	99	92	91	93	98	44	36
35	98	91	85	89	98	42	35
34	96	88	83	84	96	38	34
33	94	83	79	82	95	34	33
32	92	80	71	78	93	30	32
31	90	78	67	73	89	29	31
30	88	74	60	66	88	27	30
29	86	69	53	60	84	24	29
28	85	65	46	53	80	23	28
27	81	60	44	50	75	19	27
26	73	57	41	45	70	17	26
25	67	53	34	42	64	14	25
24	61	48	29	39	57	13	24
23	49	44	28	37	52	13	23
22	44	40	24	32	44	11	22
21	38	33	20	29	38	10	21
20	33	31	15	26	30	10	20
19	29	26	13	24	26	8	19
18	26	23	12	22	22	7	18
17	21	21	8	17	18	6	17
16	18	17	7	14	15	4	16
15	14	14	5	12	14	3	15
14	11	11	4	11	11	3	14
13	8	8	2	9	9	2	13
12	6	7	1	7	8	1	12
11	4	6	1	6	7	0	11
10	3	4	0	5	6		10
9	2	4		4	3		9
8	1	3		3	1		8
7	1	2		1	1		7
6	1	1		1	0		6
5	0	0		1			5
4				0			4

TABLE 4

PERCENTILE NORMS FOR THE HESTON PERSONAL ADJUSTMENT INVENTORY

HIGH SCHOOL SENIORS—WOMEN

(Norms based on 251 women from three high schools; tested in 1947)

RAW SCORE	Percentile Values						RAW SCORE
	A	S	E	C	P	H	
51						99	51
50						98	50
49						96	49
48						94	48
47						88	47
46						84	46
45						79	45
44						75	44
43						72	43
42						65	42
41						59	41
40		99				57	40
39		97				53	39
38		95		99		50	38
37		92	99	98		47	37
36	99	88	98	97		43	36
35	98	85	97	95		38	35
34	96	81	94	94	99	36	34
33	93	76	90	92	98	34	33
32	90	73	86	91	96	31	32
31	86	69	84	88	94	29	31
30	85	65	82	85	91	26	30
29	76	59	77	83	87	23	29
28	70	56	76	76	81	21	28
27	64	51	72	74	78	19	27
26	58	46	66	69	75	17	26
25	53	42	62	66	67	16	25
24	46	39	56	59	60	14	24
23	39	34	51	55	50	12	23
22	35	33	48	49	45	11	22
21	29	30	44	43	39	10	21
20	23	26	39	40	34	8	20
19	19	25	34	35	30	8	19
18	15	21	28	32	25	7	18
17	12	19	23	31	23	6	17
16	7	15	21	26	18	6	16
15	5	13	19	21	15	5	15
14	3	10	16	17	11	4	14
13	2	8	13	15	7	4	13
12	2	6	10	12	5	3	12
11	1	5	9	10	4	2	11
10	0	4	6	8	3	1	10
9		4	3	5	2	1	9
8		3	2	3	1	1	8
7		2	1	2	0	1	7
6		2	1	2	0	0	6
5		2	0	1			5
4		0		1			4
3				0			3

TABLE 5
NUMBER AND SOURCES OF CASES USED IN PREPARING NORMS,
TABLES 1-4

COÖPERATING SCHOOL	NO. OF MEN	NO. OF WOMEN
COLLEGE FRESHMEN (1947)		
Anderson College	169	92
DePauw University	263	253
Indiana Central College	127	46
Muskingum College	149	122
University of Kentucky	—	84
Wabash College	176	—
(Total)	884	597
HIGH SCHOOL SENIORS (1947)		
Greencastle, Indiana	26	42
Richmond, Indiana	144	151
Shortridge (Indianapolis)	46	58
(Total)	216	251

separate personality components that are apparently validly measurable, it has seemed both desirable and feasible to construct this test of traits "A S E C P H."

Many of the items in this Inventory have been modeled after questions found valid for similar traits in preceding inventories. Specifically the author wishes to acknowledge with grateful appreciation the kind permission of the following authors and their publishers to use certain modified and rephrased items suggested by questions previously used in their own respective tests. (For complete citation see Bibliography references indicated in parentheses.) It is through the coöperation of these investigators that we were able to approach the construction of the present Inventory with much very valuable background research and experience already available. While the items have all been revised in their wording to clarify their connotations for present purposes, our indebtedness to these earlier authors is still very great:

- Bell's *Adjustment Inventory* (4)
- Darley and McNamara's *Minnesota Personality Scale* (6)
- Guilford's *Inventory of Factors STDCR* (11)
- Guilford and Martin's *Inventory of Factors GAMIN* (12)
- Evans and McConnell's *Minnesota T-S-E Inventory* (10)
- Thurstones' *Personality Schedule* (19)

These items plus many others constructed originally for this study were then tentatively sorted for experimental analysis and verification into the six trait categories (A S E C P H) now measured by this Inventory. Three item-validation studies, described below, were then carried out with the entire freshman classes entering DePauw University in 1945 and 1946 and in six colleges in 1947. During this experimental observation and statistical refinement more than 450 items were tried out in ultimately selecting the 270 items now included in the Inventory. Throughout this preliminary work and in the present form of the Inventory, no single item has ever been allocated to more than one of the scales. Thus the degree of overlapping between traits (as shown in the scale intercorrelations) is genuine and not an artifact resulting from the practice of counting one item on several scales.

RELIABILITY

The reliabilities of the six scales in the present edition have been determined by the split-half method applied to a sample of 100 students (50 of each sex) from the 1947 freshman class at Anderson College. The raw correlations thus obtained were treated by the Spearman-Brown Prophecy formula for estimating reliability from two comparable halves of a test. Table 6 presents these corrected reliability coefficients, which are all large enough for very satisfactory use in group situations. In individual cases one should observe some caution, particularly in traits "C" and "P," where the coefficients are lower and hence the scores are less stable. All of these reliability coefficients are very similar in magnitude to those obtained in two earlier studies — a study based on 200 DePauw University freshman women tested in 1946 (split-half method) and a test-retest (April-September) reliability study done in 1947 with 56 men candidates for scholarships at DePauw University. The close agreement among the three separate studies gives us added confidence that the reliability coefficients reported in Table 6 represent a stable trend.

TABLE 6
RELIABILITY OF THE INVENTORY SCALES, AS DETERMINED BY THE
SPLIT-HALF METHOD AND CORRECTED BY THE SPEARMAN-BROWN
PROPHECY FORMULA

N = 100 (50 Men and 50 Women, Anderson College, 1947)

SCALE	RELIABILITY COEFFICIENT
A — Analytical Thinking	.855
S — Sociability	.910
E — Emotional Stability	.862
C — Confidence	.835
P — Personal Relations	.800
H — Home Satisfaction	.867

VALIDITY

The problem of validity of the several scales has been approached in a threefold fashion: (1) the method of internal consistency, (2) the psychological meaningfulness of the component items, and (3) the method of validation against independent criteria. Admittedly none of these methods alone is adequate, for personality tests are by the very nature of their content extremely difficult to validate. As Stagner (17) has so aptly put it, one cannot "surgically lay bare the 'inner personality,' and compare its organization with results of the test. Only indirect inferences are possible."

No item has been retained in any of our final scales unless it first meets the test of *internal consistency*. This technique, used successfully by the Thurstones (18), has been utilized in several inventories since. To satisfy this criterion, an item must successfully differentiate between "High" and "Low" criterion groups on the scale in question. In selecting items for this Inventory the criterion groups on any given scale were the highest 27 per cent of the sample (scored by the predetermined answer key) and the lowest 27 per cent. Use was then made of the "Discrimination Index" suggested by Davis (7).

Three internal-consistency studies have been performed, involving respectively trait-criterion groups chosen from the 1945 DePauw University freshmen, the 1946 DePauw University freshmen, and in 1947 from all the papers (from six colleges) used in final preparation of the present norms. Following each analysis, items were then assigned (or changed, if necessary) to the scale for which they earned the highest discrimination index. In these successive steps of statistical refinement many items were eliminated and some ultimately became attached to scales other than the ones for which they were originally formulated in 1945. A minimum Discrimination Index of 30 was used for retention of an item, and a mean Discrimination Index of 45 or higher was obtained for the items in each scale.

Separate item-analyses were run for each sex in the 1947 population obtained from the six cooperating colleges. This procedure was designed to determine if separate scoring keys should be used for the two sexes. The obtained validities were so nearly parallel for the two sexes on every scale that we are definitely warranted in concluding that separate scoring keys are *not* justified for the two sexes. Even though separate norms are needed, the traits measured in each case appear based on the same item patterns.

The hasty critic will freely point out that use of the method of internal consistency in item-validation is unfortunately analogous to "lifting oneself by one's bootstraps." This methodological difficulty is recognized, but one cannot overlook the fact that item-relationships assessed in this manner must exist in the thinking and attitudes of the examinees who have taken the tests. Otherwise items chosen as "valid" for one population would not show repeated consistency when transferred to other groups. The surviving items now used in our Inventory must have some meaningful stability, since they have demonstrated continued significance in three separate analyses, even when involving students from six different college populations. Factor analysis, sometimes suggested as a substitute method of item selection, is essentially not so different, for it depends upon correlations obtained from inter-item relations and hence is an "internal" method, too.

The second method utilized in seeking to improve validity was the insistence that in connotation each statement must be *psychologically meaningful* for the trait under consideration. An item was not assigned to a scale, no matter how high its statistical discrimination index, unless in its customary connotation it made "sense" for that scale. In part the author was helped here by the judgment of the earlier authors previously acknowledged and in part by the judgment of the various counselors working with him in the DePauw University Bureau of Testing and Research.

In the third approach to evaluation of validity we have utilized a series of studies seeking to demonstrate the relation of test scores to specified independent criteria.¹ The goal in these studies has been to observe how the Inventory's assessment of personality components agrees with some of the methods frequently used in student personnel programs. One does not expect validity coefficients here equal to those obtainable in intelligence or achievement measurement.

In one study 34 DePauw faculty members were given the Inventory percentile scores of each of their student counselees and asked to express

¹ All these investigations were carried out at DePauw under the author's supervision either as theses for senior psychology seminar by advanced students, as cited in the Bibliography, or by the staff of the Bureau of Testing and Research.

their judgment on each score in one of three possible ways: (1) *Agree* with score within 15 percentile points, (2) *Disagree* by more than 15 percentiles, or (3) *Refuse to judge* because of too little basis. (The counselors were given more than one full semester to become acquainted with their students before they were given their scores and asked to express their judgments.) These 34 professors passed judgment on the "validity" of the scores for a total of 269 counselees, as shown in Table 7. With the exception of trait "H" (refused judgment in half the cases) the counselors agreed about 65 per cent of the times and disagreed about 10 per cent, refusing 25 per cent of the judgments. It is apparent that the Inventory traits size up a student in somewhat the same manner as the faculty counselor knows him.

TABLE 7
THE DEGREE OF AGREEMENT BETWEEN COUNSELORS'
JUDGMENTS AND INVENTORY SCORES
(Based on 34 Counselors and 269 DePauw Freshmen)

INVENTORY TRAIT	(PER CENT OF COUNSELOR JUDGMENTS)		
	AGREED	DISAGREED	REFUSED
A—Analytical Thinking	64	10	26
S—Sociability	66	8	26
E—Emotional Stability	69	6	25
C—Confidence	65	12	23
P—Personal Relations	61	12	27
H—Home Satisfaction	47	4	49

Armstrong (2) compared trait scores earned by 95 DePauw upper-class men with ratings on these same traits. Each subject was rated by seven close acquaintances on a graphic rating scale showing five steps or degrees per trait. In scoring the ratings, however, a ten-step "ruler" was used to measure the strength of each rating, thus permitting more refinement of the data. The raw correlation between each trait score and its respective mean rating was determined. These coefficients were then corrected for the unreliability of the criterion, using the formula suggested by Adkins (1), designed to predict validity if the criterion was perfectly reliable. This method is superior to the customary correction for attenuation that corrects for unreliability of the test, too. The corrected coefficients shown in Table 8 indicate significantly positive correlations in each comparison. Some of these are as high as those often secured between college aptitude tests and college grades.

TABLE 8
CORRELATION BETWEEN INVENTORY SCORES AND
MEAN TRAIT-RATINGS BY ACQUAINTANCES
N = 95 (DePauw Upper-Class Students)

INVENTORY TRAIT	CORRECTED FOR CRITERION UNRELIABILITY	
	RAW r	
A—Analytical Thinking	.50	.59
S—Sociability	.43	.51
E—Emotional Stability	.24	.28
C—Confidence	.36	.46
P—Personal Relations	.26	.34
H—Home Satisfaction	.59	.70

The Armstrong study raised the question as to how test scores would be related to self-ratings. In Table 9 are presented the raw validity coefficients thus obtained in a sample of 92 DePauw University freshmen in 1947. These parallel the raw correlation coefficients in Table 8 to a certain extent.

TABLE 9
CORRELATION BETWEEN INVENTORY SCORES AND
SELF-RATING ON THESE TRAITS
N = 92 (DePauw Freshmen)

INVENTORY TRAIT	r
A—Analytical Thinking	.31
S—Sociability	.45
E—Emotional Stability	.46
C—Confidence	.34
P—Personal Relations	.35
H—Home Satisfaction	.62

To complete the cycle of appraisal of such rating as criteria of validity, Elloe (9), using 81 of the same students involved in Table 9, correlated their self-ratings with their mean ratings by five acquaintances. His data, in Table 10, show on the average somewhat less agreement between the two types of ratings than between Inventory scores and either set of ratings. We may conclude that the Inventory scores are in the main more consistent than either of the types of rating used as criteria in Tables 8 and 9. The Sociability and Home Satisfaction scales seem the most valid when judged by rating criteria.

TABLE 10
CORRELATION BETWEEN SELF-RATING AND MEAN RATINGS
BY ACQUAINTANCES ON THE SIX INVENTORY TRAITS
N = 81 (DePauw Freshmen)

TRAIT	r
A—Analytical Thinking	.13
S—Sociability	.38
E—Emotional Stability	.27
C—Confidence	.44
P—Personal Relations	.27
H—Home Satisfaction	.43

In a small study involving only 37 DePauw University freshmen, Longley (16) computed all the intercorrelations between this Inventory and the Minnesota Multiphasic Personality Inventory (13). High scores on the MMPI signify maladjustment; hence negative correlations would be anticipated for those scales on the two tests that exhibit agreement. Because of the small sample we shall summarize here only correlation coefficients of .50 or more, as suggesting significant relationship. None of the MMPI scales revealed coefficients of this magnitude with our scales for Analytical Thinking, Sociability, or Home Satisfaction; these results were as one would expect. Confidence correlated $-.50$ with Depression and $-.64$ with Psychasthenia. Personal Relations correlated $-.75$ with Depression,

$-.53$ with Psychasthenia, and $-.52$ with Schizophrenia. Emotional Stability correlated $-.55$ with Psychasthenia and $-.59$ with Schizophrenia. All these coefficients indicate positive agreement that people low on our "C," "P," and "E" scales are prone to show relatively poor adjustment as far as the MMPI scales for Depression, Psychasthenia, and Schizophrenia are concerned. This corroborates the conclusions one might draw from a comparison of the trait descriptions for the two tests.

Henry (14) has recently devised a 22-item questionnaire with quantitative answers to measure Sociability among college students. Each item is so phrased that the respondent gives a numerical answer to a question asking "How many?" or its equivalent. Scores ranging from 35 to 105 (with a median at 76) have been obtained; thus his test affords a wide possible variability. Using this as his criterion of Sociability, he found the following (raw) coefficients of correlation, in a sample of 49 DePauw University upper-class men, between his test and our Inventory scales: Confidence .44, Personal Relations .08, Analytical Thinking .08, Sociability .71, Home Satisfaction .26, and Emotional Stability .12. Since the correlation of our Sociability scale with Henry's quantitative measure of the same trait is so high even when not corrected for criterion unreliability, it is evident that both scales are arriving independently at the same sort of measurement.

ADDITIONAL STUDIES

There are several further analyses which can be used to help clarify some of the significance of Inventory scores, even though these researches are not cited as validity measures. Bauerschmidt and Kennedy (3) used the Inventory in a study contrasting "leaders" and "non-leaders" among the senior women at DePauw in 1948. Their objective criterion of leadership was the "activity-point" system customarily used on the campus in controlling the number of extracurricular activities participated in by any one student. These investigators selected from the 195 women of the senior class the 20 with the highest point total for four years and the 20 with the lowest total. The leaders had an average of 64 points, ranging from 42 to 85, and the non-leaders an average of 8, with a range of 2 to 16. The data in Table 11 give the means and critical ratios for differences in means. None of the critical ratios reach the "certainty" level of 3.0, but the ones for Analytical Thinking and Emotional Stability are high enough to predict that in about 98 out of 100 cases leaders will be higher than non-leaders on

TABLE 11
MEAN RAW SCORES AND CRITICAL RATIOS OF THE DIFFERENCE IN MEANS ON THE HESTON
PERSONAL ADJUSTMENT INVENTORY FOR 20 COLLEGE WOMEN "LEADERS"
VS. 20 "NON-LEADERS"

INVENTORY SCALE	LEADERS' MEAN	NON- LEADERS' MEAN	DIFFER- ENCE	STANDARD ERROR OF THE DIFFER- ERENCE	CRITICAL RATIO OF THE DIFFER- ENCE IN MEANS
A—Analytical Thinking	26.8	23.2	3.6	1.7	2.06
S—Sociability	29.5	28.5	1.0	1.8	0.56
E—Emotional Stability	28.3	24.0	4.3	2.2	2.16
C—Confidence	28.8	24.7	4.1	6.3	0.64
P—Personal Relations	26.2	22.4	3.8	4.2	0.89
H—Home Satisfaction	39.0	38.6	0.4	12.6	0.03

these traits. While the other differences are less significant, it is evident that leaders have a tendency to score higher on all the scales except Home Satisfaction. Examination of the individual scores reveals the following interesting generalization, that while some non-leaders may be high on Inventory scores, it is very rare for a leader to be low on any scale.

Cook (5) used the Inventory with 73 men just being admitted to the Indiana Reformatory at Pendleton. The age distribution of these male prisoners approximated that of college men. The offenses for which they were committed were not of the type to justify penitentiary sentences. Seeking to determine what differences in adjustment the Inventory would reveal, Cook compared the 73 reformatory inmates' score distributions with the sample of 884 college freshman men used in our norm group. The data in Table 12 reveal that in every scale the college men exhibited superior

TABLE 12

MEAN RAW SCORES AND CRITICAL RATIOS OF THE DIFFERENCE IN MEANS ON THE HESTON PERSONAL ADJUSTMENT INVENTORY FOR 884 COLLEGE MEN VS. 73 MALE REFORMATORY INMATES

INVENTORY SCALE	COLLEGE MEN'S MEAN	REFORMATORY MEAN	STANDARD ERROR OF THE DIFFERENCE	CRITICAL RATIO OF THE DIFFERENCE IN MEANS
A—Analytical Thinking	24.7	21.2	.32	10.94
S—Sociability	26.1	24.0	.91	2.31
E—Emotional Stability	30.1	26.4	.94	3.94
C—Confidence	26.8	24.7	.87	2.41
P—Personal Relations	24.7	23.0	.72	2.36
H—Home Satisfaction	38.8	34.2	1.13	4.07

adjustment scores, for all the critical ratios either reach or approach significance. The Inventory can evidently make successful group discriminations between these two widely divergent samples of men. The critical ratio for "A" is very high, which is not surprising. In a second phase of the study Cook did not succeed in finding significant differentiation between our norm group of high school boys and a group of 98 boys of comparable age at the Indiana Boys' School at Plainfield, a juvenile correctional institution. Apparently the divergence (in educational and socioeconomic status as well as in antisocial inclinations) is less pronounced here than between the older men in the college and adult criminal groups sampled.

Since the Inventory will be used in educational institutions, there will be considerable interest in its relation to those two familiar variables frequently used in academic research — i.e., scholastic aptitude and scholastic achievement. Accordingly we have carried out a study of a sample of 100 DePauw 1947 freshmen (50 men and 50 women), using the American Council on Education Psychological Examination (total raw score) as our criterion of scholastic aptitude, and first-semester grade-average as our measure of achievement. The raw correlation coefficients are given in Table 13. Only two of the coefficients are significant, indicating some small positive relation between Analytical Thinking and both variables. This is an interesting trend, but should not necessarily be construed as evidence of validity for our scale "A." The negative correlation between "E" and grade-average is not quite significant, but it does confirm a similar trend we have observed in various earlier studies.

TABLE 13

CORRELATIONS BETWEEN THE INVENTORY SCALES AND ACADEMIC APTITUDE AND ACHIEVEMENT

N = 100 (50 Men and 50 Women, DePauw University, 1947)

SCALE	CORRELATION WITH ACADEMIC APTITUDE (ACE PSYCHOLOGICAL EXAMINATION)	CORRELATION WITH ACADEMIC ACHIEVEMENT (FIRST SEMESTER GRADE AVERAGES)
A—Analytical Thinking	.307	.358
S—Sociability	-.039	-.051
E—Emotional Stability	-.087	-.243
C—Confidence	-.021	-.126
P—Personal Relations	-.096	.041
H—Home Satisfaction	-.032	-.084

SCALE INTERCORRELATIONS

Whenever one is confronted with a series of labeled scores, each supposedly measuring a different trait, an appropriate question to ask is: "Are these traits really separate and independently measured, or are the test elements which compose one score the same as those which enter into another score, thus causing a spuriously high correlation between the different scores?" In too many personality inventories the latter is the case. The same items enter into several different scores so that even if the traits measured were independent, the scores obtained would necessarily be correlated at least to a certain extent, since a change in one response would change several scores simultaneously; furthermore, if there were a genuine correlation between two of the traits measured, the correlation between the obtained scores would be unduly high, since it would reflect not only the true correlation but also the spurious relation arising from the failure to obtain independent measures of the traits.

In the Heston Personal Adjustment Inventory, each of the six traits is measured *entirely independently*, by a separate set of items. The items in each set have demonstrated that, in light of both logical and statistical considerations, they belong in that set alone. Since this is the case, we may feel confident that whatever correlations are found between scales represent true relationships and are not artifacts resulting from the scoring method employed.

Examination of the intercorrelations among the scales shows that the degrees of relationship between pairs of traits assessed by the Inventory vary rather widely; some of the correlations are in the vicinity of zero while others are definitely significant in magnitude, as seen in Table 14. These data, based on a combined sample of 50 men and 50 women from the 1947 DePauw freshman class, are very much like others we have previously obtained with earlier groups. The congruent results found with successive samples indicate adequate stability for the present data. In 1946 we calculated separate intercorrelation tables for a sample of 100 men and another of 100 women. The two sets of coefficients were so nearly parallel that we were justified in using a combined sample for the 1947 analysis.

From the evidence in Table 14 it seems obvious that scales "C," "P," and "E" form a significantly related triad. This association is both logical and genuine. The items do not overlap from one scale to another. Although

TABLE 14

INTER-TRAIT CORRELATIONS FOR THE INVENTORY SCALES

N = 100 (50 Men and 50 Women, DePauw University, 1947)

SCALE	A	S	E	C	P	H
A—Analytical Thinking		-.076	-.183	.011	-.169	.033
S—Sociability			.325	.438	.378	.262
E—Emotional Stability				.726	.641	.382
C—Confidence					.580	.312
P—Personal Relations						.393
H—Home Satisfaction						

they involve categories of behavior independently describable, it is easy to see how the three characteristics can coexist to similar degree in many persons. This raises the pertinent question as to whether it is necessary to measure the three traits separately, when perhaps one scale would suffice. To meet this query, the data for a random sample of 50 men were examined. The procedure followed was to determine how frequently a man's score on one trait fell in the same quarter of the norms on the other trait. Thus, if he had a percentile of 98 on "C" and a percentile of 76 on "P," he was in the same (top) quarter of the norms. In the ensuing comparisons we found "C" and "P" coincided in the same quarter in 36 per cent of the cases, "C" and "E" in 52 per cent of the cases, and "P" and "E" in 48 per cent of the cases. We can conclude, then, in spite of the high correlations observed among these three traits, that in at least half the cases the score on one trait will probably vary 25 or more percentile points from the other two scores. This seems to justify continued use of all three scales to get at separate factors in adjustment.

Scales "S" and "H" show some positive association with "C," "P," and "E" and also with each other. These correlations, however, are smaller and of less consequence than those in the "C P E" triad just discussed. Again we stress that since there is no item overlapping, all associations observed are legitimate phenomena and not spurious artifacts. It seems reasonable to assume some positive relations would be found among traits of supposed good personal adjustment.

Scale "A," our measure of Analytical Thinking, seems very much divorced from the other five scales. It is certainly the most independent scale of the entire Inventory. Not only does it correlate to a negligible degree with the other five, but it will be recalled that "A" was the only one appreciably related to our academic measures of aptitude and achievement. The description of the scale itself perhaps provides sufficient explanation as to why "A" shows so little relation to the other scales.

SPECIAL RESEARCH SCALES

The author has developed from this Inventory another scale, "Masculinity-Femininity," for use in psychological research projects. This "MF" scale, described elsewhere (15), is not being made generally available with the Inventory, because it is not only more tentative, but also much more difficult to interpret clearly to the average examinee.

Bauerschmidt and Kennedy (3), in connection with their leadership study, have begun the development of a "Leadership" scale, based on an item-analysis procedure similar to that used for the "MF" scale.

Qualified professional workers who wish to use either of these tentative scales in new research projects are invited to communicate directly with the author. Scoring keys and any pertinent norms will be made available for properly supervised research purposes.

ACKNOWLEDGMENT

Genuine indebtedness has already been indicated to the various authors of earlier personality inventories for their permission to use modified test items. An even greater contribution to this project has been that made by Vivian Pickett and Doris Armstrong. These two assistants in the DePauw University Bureau of Testing and Research have been associated with all the many details of test scoring, compilation of norms, item-analyses, and the various statistical studies involved since the project was initiated in July, 1945. Without their painstaking and coöperative assistance the task could not have been accomplished.

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Student Adjustment Rating Sheet

Number _____ Grade _____ Date of Birth _____

Instructions:

After reading the manual consider each aspect of adjustment that is defined in the left hand column one at a time. Check in the right hand column the description that most nearly fits the individual under consideration. After all aspects have been checked, review the descriptions in the right hand column and judge the overall adjustment of the individual. Place a check mark on the rating scale. Try to be as objective in your ratings as possible and use all your knowledge of the individual gained through your day to day relations with him.

1. Integrated Behavior

The individual presents a well organized behavior pattern to the world. He has reconciled his physiological needs with the demands of his environment. He has established reasonable goals approximate to his age level and expends his energies working toward them.

Almost always presents a smooth, even and harmonious behavior pattern. Can discipline himself and acts in line with his goals and opportunities.

Is generally in harmony with his environment. May occasionally fly off the handle, but usually has good control of self.

Maintains a fairly even behavior pattern. Occasionally experiences difficulty bringing his needs in line with his opportunities.

Is frequently erratic in his behavior. Seldom predictable. May try to fulfill his needs in line with his opportunities.

Nearly always unintegrated in his behavior, excessively tense, or continually going off on a tangent. Seems to behave erratically. May evidence an excessive need for affection, attention, praise, etc., through exaggerated behavior—sterling, excessive sexual activity, infantilism, etc.

2. Social Conformity

Meets the demands of society by reasonable conformity to its rules and regulations. He has a good attitude toward people and people have a good attitude toward him. He seems to display social sensitivity.

Almost always obeys the socially accepted rules. Thinks well of himself and is well thought of by others. Is sensitive to the rights and feelings of others.

Tries to conform to socially accepted regulations and is generally successful. Admits mistakes readily and promptly seeks to remedy defects. Generally accepted by others.

Tries to meet the demands of society but breaks its rules occasionally. Seems to profit from experience. Accepted by others part of the time.

Is frequently at odds with society. May frequently display anti-social behavior. Breaks many rules and has only a small circle of friends.

Nearly always at odds with others. Makes his own rules and claims every one else is out of step. Constantly breaks the rules that most conform to easily. Breaks the same rules over and over.

Student Adjustment Rating Sheet(cont.)

-2-

3. Adaptation to Reality

Can profit from past experiences and consequently sets goals that are commensurable with his ability. Can recognize his own strengths and weaknesses and capitalizes on them. Is able to put off immediate satisfaction for the more lasting satisfaction that comes with the attainment of long range goals.

- ☐ Nearly always sets goals that are realistic. Can nearly always put off immediate satisfactions in favor of efforts toward long range goals.
- ☐ Usually faces things realistically. Occasionally permits immediate satisfactions to distract efforts toward a distant goal. Recovers quickly.
- ☐ Sometimes behaves realistically but at other times is very unrealistic. Can put off immediate satisfactions and does so about half the time.
- ☐ Goals are frequently unrealistic. Justifies his weaknesses rather than adjusting to them. Can seldom refrain from immediate pleasure seeking.
- ☐ Sets unreal goals for himself. Almost always gratifies the immediate need of the moment. Wants to have the reward, but can almost never make himself do the day to day tasks that will bring the reward.

4. Maintaining Consistency

Over a reasonable period of time his actions are consistent with the standards he sets for himself. Knowing the circumstances the observer can usually predict what course his behavior will take.

- ☐ Behavior is almost always predictable when the circumstances are known.
- ☐ Behavior can generally be predicted. Occasionally his reactions are surprising.
- ☐ One misses being able to predict his behavior about half the time.
- ☐ Seldom can his behavior be predicted. Occasionally his reactions are predictable.
- ☐ Behavior is almost never predictable. One can never be sure just what course of action he will take.

5. Maturing with Age

Becomes increasingly responsible for his own behavior as he grows older. Infantile forms of behavior, i. e. excessive bids for attention of an adult drop out and he becomes more interested in status with age mates. Seems to be growing up in interests, attitudes, and reactions.

- ☐ A steady progression can be noted from child-like behavior to more mature forms. Very little evidence of regression.
- ☐ Progression identifiable but moves forward in spurts. Occasionally reverts to childish forms of behavior but recovers quickly.
- ☐ Progression is occurring but there are frequent setbacks and sometimes one feels as if gains in one area are offset by losses in another.
- ☐ Frequently reverts to childish behavior. Advances if made at all are slow. May be over-dependent, defiant, and stubborn. May resort to occasional running away, crying, temper tantrums, etc.
- ☐ Seems to react like a child of a much younger age. Can't be trusted. Either extremely dependent on adult direction or very defiant toward all direction.

Student Adjustment Rating Sheet(cont.)

-3-

6. Optimal

Emotional Tone

Doesn't react ex-

cessively to the

daily trials and in-

conveniences. Ex-

presses assurance

and cheerfulness

even in the face of

difficulties. En-

joys simple physio-

logical pleasures,

eating, sleeping,

holding hands, etc.

without making an

issue of any. Has

a freedom of expres-

sion of emotion, but

still maintains

control.

Is usually cheerful and optimistic. Can take setbacks and disappointments in stride. Controls his emotional expressions.

Maintains adequate control over emotional expressions. May occasionally permit an exaggerated display but recuperates quickly.

Sometimes has control over his emotion but in about an equal number of situations loses control.

Frequently explodes emotionally. Is not in a constant state of agitation. May overemphasize physiological pleasures. May exhibit some exaggerated rage, love, and fear tendencies.

Gives vent to exaggerated emotional expression. Exhibits violent rages, loves, fears, etc. Has little or no control over his reactions.

7. Increasing

Effectiveness

Becomes increas-

ingly effective in

making contribu-

tions to the group.

Resolution of un-

due tensions leaves

him free to make ef-

ficient use of his

time. Is able to

get maximum use out

of his abilities no

matter what level

he is forced to

work on.

Production is commensurate with his ability.

Does things effectively and efficiently. Contributes to group through effective self-activity. A self starter.

Generally works up to ability level but sometimes uses inefficient methods. Doesn't make as much contribution as he could.

Usually maintains a fairly even minor discrepancy between ability and effectiveness level. Occasionally makes a group contribution.

Somewhat of a lag between efficiency level and ability. Rarely makes any contribution to group. Methods are ineffective but he does not deliberately waste effort.

An extreme lag between ability and production. Work is inefficiently done. Has to be continually prodded. Methods of working are wasteful.

Number

Date

Name of Person Making Rating

Position

Adjustment Rating

Mal-
adjusted

Somewhat
Mal-
adjusted

Average
Adjustment

Fairly
Well-
adjusted

Well-
adjusted

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INTRODUCTION

Each of us daily make judgments in regard to the relative quality of the adjustment being made by the children with whom we deal. Sometimes we use as the basis for our judgments some unusual and infrequent form or behavior that colors our judgment of a person. For instance, a child makes a bad social judgment and steals an employee's car for a joy ride on the campus. He is usually inclined in such cases to let an exaggerated instance of behavior color our entire judgment of that child. Occasionally we go the opposite extreme and find that because a child fulfills some of our own needs as adults by seeking our advice, complimenting us, etc., that we overlook the areas in which he does evidence maladjustment and we rate him much higher than he really deserves to be rated. Both extremes cited are difficult to control in appraising human behavior. Regardless of the errors which we are bound to make because we, the raters, are also human, we do need to know more about the instruments we use to appraise adjustment.

Quite frequently we have used the ratings of students by those who knew them well as the criteria against which to validate other instruments. We are now engaged in a research project to attempt to determine the relationships between the various instruments now available. You are being asked to participate in this project by thinking over carefully your contacts with the boys whose names appear on your list. You are then asked to use the Student Adjustment Rating Sheet to arrive at an overall judgment of each boy. When results from the various areas of this research are finally assembled, your contribution will be appropriately recognized. The rest of this manual is devoted to a brief sketch of what we consider the aspects of adjustment, the details of the rating sheet, and an example of its use.

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ASPECTS OF ADJUSTMENT

In order to make a valid judgment of adjustment in any individual case, it is necessary to agree upon what we think we mean by adjustment. In reviewing the literature in the field and surveying the expert opinion available, we have found considerable agreement that the word adjustment pertains to a process not a state reached or to be reached. However, for convenience we may examine and rate this process at any particular instant in time, always remembering that this is an ongoing process which we are examining and, as a result, subject to change. Further, we find the experts discussing adjustment as a dynamic concept, i. e. it is impossible to isolate certain elements of the process and neglect other elements. We have to see the effects of the various aspects as they are demonstrated by the functioning person. Again for convenience we can examine various agreed upon aspects of adjustment, fully realizing that our categories are artificial and largely arbitrary. We have in the Student Adjustment Rating Sheet incorporated these agreed upon categories which when considered as functioning interrelatedly may give us a basic picture of a personality that will enable us to arrive at a reasonably sound judgment as to the level of adjustment being exhibited. These seven aspects or ways of looking at adjustment are - (1) integrated behavior, (2) social conformity, (3) adaptation to reality, (4) maintaining consistency, (5) maturing with age, (6) optimal emotional tone, (7) increasing effectiveness.

The well adjusted person is one whose total behavior appears to be integrated. He has worked out a harmonious relationship with the world. He has found ways to reconcile his physiological needs and his psychological needs with his environment. His need for affection and love from other people, for example, do not dominate his whole behavior. He is able to set goals that are within his reach and seems to be progressing toward their fulfillment without undue stress or tension. He is well-balanced and not always concerned with any one aspect of living to the exclusion of others.

The well adjusted person also exhibits a satisfactory degree of social conformity. He usually succeeds in adopting the prevailing cultural code without drastic rebellion. He may question certain cultural patterns but does so with an open mind. He is usually more aroused by social injustice than by radical schemes to overthrow certain accepted rules. He knows how far he can go without offending other people. His standards may be different from associates but he respects their standards and shows tolerance for them. He has a good attitude toward people and they have, in return, a good attitude toward him. He is liked by the group and doesn't have to depend upon exaggerated forms of behavior for acceptance.

The person judged well adjusted can also adapt himself to reality. This means in part that he can postpone immediate pleasures if they interfere with the attainment of his long time goals. The sixteen year old boy, who has good ability and a desire for a position in the printing trade, for example, applies himself to his daily tasks in the print shop with little opportunity to make spare change, even though he has the opportunity to work in the auto shop where he can pick up considerable pocket money for immediate pleasure satisfaction. He is the person who willingly disciplines himself to the day by day details of a difficult job if it means future attainment of a realistic goal. Here also is the person who capitalizes on his strong points and goes about to correct his weak points in direct manner but does not let them get him down. He may recognize his inability to become a great artist and satisfy himself with creative art for his own pleasure as a hobby. He doesn't constantly dream of unreal goals and neglect progress toward the goal by constantly dreaming of having already reached the goal. He compromises with reality and does so without becoming upset.

An adjusted person is also a consistent one. He has formulated reasonable standards of behavior for himself and, if the observer is acquainted with the circumstances, one can usually predict his reactions. You know that if he suffers a new disappointment he can adjust himself to it without losing outward control. The maladjusted person may also be consistent in his behavior which is one reason why this aspect of adjustment can not be considered without reference to other aspects.

The successfully adjusting person also appears to make progress with age. As he becomes more mature he gains more control over his behavior. He is able to take more independent responsibility for his actions and the more infantile forms of behavior occur less frequently. The older boy, who is adjusting, no longer bursts into a temper tantrum when he is refused permission to do something which he had his heart set upon. He is able to see the reason for refusal and able to accept a substitute satisfaction. He no longer has the interests characteristic of the younger boy. He becomes increasingly conscious of his status with his peers. He takes a wholesome interest in the opposite sex. He

becomes increasingly aware of the need for vocational planning and makes efforts to plan wisely for his future. He likes to be independent and demonstrates readiness for independency.

The well adjusted person maintains an optimal emotional tone. He accepts disappointments, set-backs, and difficulties, and incorporates them into an essentially optimistic frame of reference. He is sure of himself and faces his daily tasks cheerfully. He experiences no sharp upswings or depressions in mood. You are fairly certain that when he is physically well he will approach everyday affairs with a consistent, positive mood. He seems to get a thrill out of living. He enjoys the usual sensual pleasures without exaggerating their importance. He likes to eat, sleep, go on dates, participate in athletic events, and work hard on a few well chosen hobbies. He has a healthy attitude toward members of his own sex and members of the opposite sex. He appears to be able to control his emotional needs such as love, approval, excitement, etc. He is able to express himself emotionally but does not lose control of himself.

Finally, the well adjusted person gradually reaches a degree of effectiveness in his everyday living so that he is able to go beyond himself and contribute to the well being of others. He does so by employing methods that give him time to participate in more activities. He has learned to schedule his activities so that he seems to have time for everything without appearing harassed and tense. He has lessened the gap between his ability level and his production level. He is able to work up to the level of ability attributed to him. If he is a bright boy he makes good grades and is proud of the fact but not to the extent of displaying his success unmercifully to less fortunate people. The same applies to the well adjusted boy of low ability level. He works hard and is not too disturbed when surpassed by his more able fellows.

As a basic foundation then for using the Student Adjustment Rating Sheet, we may summarize by stating that the well adjusted person is one who is characterized by an integrated behavior pattern, who is conscious of the demands of society, and makes an effort to conform to these demands, who can adapt to reality, who is consistent in his day to day behavior, who grows psychologically with age, who maintains a healthy emotional tone, and who through increasing effectiveness makes increasing contributions for the welfare of the group. The maladjusted person would be the person who is judged on the basis of his behavior to be at the opposite end of the continuum on a majority of the faults of adjustment described.

DESCRIPTION OF STUDENT ADJUSTMENT RATING SHEET

This rating sheet is based upon the seven facets of adjustment as described in the last section. The name of each boy to be rated is stapled to the upper left hand corner of each rating sheet. For your convenience each facet of behavior to be rated is briefly defined in the left hand column. After familiarizing yourself with the definition of the facet look at the right hand column and read the five descriptions that attempt to describe in descending order varying degrees of adjustive behavior from well adjusted behavior to maladjusted behavior. Check the statement in each aspect area which comes closest to describing the individual under consideration. After each aspect has been checked, look over your evaluations and make a judgment as to the level of adjustment evidenced by the individual on the adjustment scale at the end of the rating sheet. This may be accomplished by making a check mark somewhere

along the scale provided.

You will find that this Adjustment Rating Scale is a continuum running from maladjusted through average adjustment to well adjusted. The seriously maladjusted boys would probably have received a check mark for the last statement under most of the aspects. The less seriously maladjusted boy may have received a majority of unfavorable checks but have some favorable ones or he may have been rated consistently on the fourth level in each aspect. The boy showing average adjustment may either be felt to have enough favorable checks to balance the effect of the unfavorable ones or have been rated consistently on the middle statement under each aspect. The fairly well adjusted individual may either have been rated consistently at the second level under each aspect or to have been rated slightly on the majority of the aspects with a few points at a lower level which are felt to be offset by his strong points. The well adjusted individual will have rated consistently high under each aspect. In making any individual rating it is necessary to consider the boy's age, his ability level, and his total picture as a functioning individual. It is felt that rather reliable ratings can be secured if you, who know these boys, will attempt to look at each boy objectively and make as accurate a judgment as you can make based upon your experiences with the boy.

EXAMPLE RATING

Below is a word picture of a boy written by a teacher. Using nothing more than this word picture, we have attempted to rate this boy using the Student Adjustment Rating Sheet. This may serve as an example of the procedure.

A Behavior Description Written by a Teacher:

This boy is of average ability but consistently does less than average work in my class. Other boys of his age, of approximately the same amount of ability, seem to accomplish a great deal more. While he has reached the age of 16 where he might be expected to see the necessity of making preparation for his classes in advance, he consistently fails to do so. He is resentful when he is required to make up work. He seldom takes part in group discussion preferring to annoy others around him. He flatly states in conferences that he desires to get out of the Home and get a job but has only vague notions as to how he would support himself. He talks of being an airplane pilot but doesn't seem to see that he is not preparing himself academically for such a choice in his everyday meeting of responsibilities. He is not well-liked by his classmates and upon several occasions has been caught bullying physically smaller boys. He has one boy crony who is of the passive type and jumps at his every command. He appears to have little interest in the girls in his class beyond teasing and insulting them when the chance presents itself. It is reported that he makes other boys do his night work and he has been known to cheat on tests and then boldly lie to get out of it when caught. However, he does get to class on time and has never been absent from class because of being A.W.O.L. from the Home grounds. He does appear to be interested in physical education classes and takes part in both Football and Track. He is not outstanding in either but appears to try. He is very antagonistic to most adults and seems to be friendly only with the truck driver and one of the farmers.

Student Adjustment Rating Sheet

Number _____ Grade _____ Date of Birth _____

Instructions:

After reading the manual consider each aspect of adjustment that is defined in the left hand column one at a time. Check in the right hand column the description that most nearly fits the individual under consideration. After all aspects have been checked, review the descriptions in the right hand column and judge the overall adjustment of the individual. Place a check mark on the rating scale. Try to be as objective in your ratings as possible and use all your knowledge of the individual gained through your day to day relations with him.

1. Integrated Behavior

The individual presents a well organized behavior pattern to the world. He has reconciled his physiological needs with the demands of his environment. He has established reasonable goals approximate to his age level and expends his energies working toward them.

☐ Almost always presents a smooth, even and harmonious behavior pattern. Can discipline himself and acts in line with his goals and opportunities.

☐ Is generally in harmony with his environment. May occasionally fly off the handle, but usually has good control of self.

☐ Maintains a fairly even behavior pattern. Occasionally experiences difficulty bringing his needs in line with his opportunities.

☒ Is frequently erratic in his behavior. Seldom predictable. May try to fulfill his needs in line with his opportunities.

☐ Nearly always unintegrated in his behavior, excessively tense, or continually going off on a tangent. Seems to behave erratically. May evidence an excessive need for affection, attention, praise, etc., through exaggerated behavior-stealing, excessive sexual activity, infantilism, etc.

2. Social Conformity

Meets the demands of society by reasonable conformity to its rules and regulations. He has a good attitude toward people and people have a good attitude toward him. He seems to display social sensitivity.

☐ Almost always obeys the socially accepted rules. Thinks well of himself and is well thought of by others. Is sensitive to the rights and feelings of others.

☐ Tries to conform to socially accepted regulations and is generally successful. Admits mistakes readily and promptly seeks to remedy defects. Generally accepted by others.

☐ Tries to meet the demands of society but breaks its rules occasionally. Seems to profit from experience. Accepted by others part of the time.

☒ Is frequently at odds with society. May frequently display anti-social behavior. Breaks many rules and has only a small circle of friends.

☐ Nearly always at odds with others. Makes his own rules and claims every one else is out of step. Constantly breaks the rules that most conform to easily. Breaks the same rules over and over.

Student Adjustment Rating Sheet(cont.)

-2-

3. Adaptation to Reality

Can profit from past experiences and consequently sets goals that are commensurable with his ability. Can recognize his own strengths and weaknesses and capitalizes on them. Is able to put off immediate satisfaction for the more lasting satisfaction that comes with the attainment of long range goals.

☐ Nearly always sets goals that are realistic. Can nearly always put off immediate satisfactions in favor of efforts toward long range goals.

☐ Usually faces things realistically. Occasionally permits immediate satisfactions to distract efforts toward a distant goal. Recovers quickly

☒ Sometimes behaves realistically but at other times is very unrealistic. Can put off immediate satisfactions and does so about half the time

☐ Goals are frequently unrealistic. Justifies his weaknesses rather than adjusting to them. Can seldom refrain from immediate pleasure seeking.

☐ Sets unreal goals for himself. Almost always gratifies the immediate need of the moment. Wants to have the reward, but can almost never make himself do the day to day tasks that will bring the reward.

4. Maintaining Consistency

Over a reasonable period of time his actions are consistent with the standards he sets for himself. Knowing the circumstances the observer can usually predict what course his behavior will take.

☐ Behavior is almost always predictable when the circumstances are known.

☒ Behavior can generally be predicted. Occasionally his reactions are surprising.

☐ One misses being able to predict his behavior about half the time.

☐ Seldom can his behavior be predicted. Occasionally his reactions are predictable.

☐ Behavior is almost never predictable. One can never be sure just what course of action he will take.

5. Maturing with Age

Becomes increasingly responsible for his own behavior as he grows older. Infantile forms of behavior, i. e. excessive bids for attention of an adult drop out and he becomes more interested in status with age mates. Seems to be growing up in interests, attitudes, and reactions.

☐ A steady progression can be noted from child-like behavior to more mature forms. Very little evidence of regression.

☐ Progression identifiable but moves forward in spurts. Occasionally reverts to childish forms of behavior but recovers quickly.

☐ Progression is occurring but there are frequent setbacks and sometimes one feels as if gains in one area are offset by losses in another.

☒ Frequently reverts to childish behavior. Advances if made at all are slow. May be over-dependent, defiant, and stubborn. May resort to occasional running away, crying, temper tantrums, etc.

☐ Seems to react like a child of a much younger age. Can't be trusted. Either extremely dependent on adult direction or very defiant toward all direction.

Student Adjustment Rating Sheet(cont.)

-3-

6. Optimal
Emotional Tone
Doesn't react ex-
cessively to the
daily trials and in-
conveniences. Ex-
presses assurance
and cheerfulness
even in the face of
difficulties. En-
joys simple physio-
logical pleasures,
eating, sleeping,
holding hands, etc.
without making an
issue of any. Has
a freedom of expres-
sion of emotion, but
still maintains
control.

☐ Is usually cheerful and optimistic. Can take
setbacks and disappointments in stride. Con-
trols his emotional expressions.

☐ Maintains adequate control over emotional ex-
pressions. May occasionally permit an exagger-
ated display but recovers quickly.

☐ Sometimes has control over his emotion but in
about an equal number of situations loses con-
trol.

☒ Frequently explodes emotionally. Is not in a
constant state of agitation. May overemphasize
physiological pleasures. May exhibit some ex-
aggerated rage, love, and fear tendencies.

☐ Gives vent to exaggerated emotional expres-
sion. Exhibits violent rages, loves, fears,
etc. Has little or no control over his reactions.

7. Increasing
Effectiveness
Becomes increas-
ingly effective in
making contribu-
tions to the group.
Resolvement of un-
due tensions leaves
him free to make ef-
ficient use of his
time. Is able to
get maximum use out
of his abilities no
matter what level
he is forced to
work on.

☐ Production is commensurate with his ability.
Does things effectively and efficiently. Con-
tributes to group through effective self-ac-
tivity. A self starter.

☐ Generally works up to ability level but some-
times uses inefficient methods. Doesn't make
as much contribution as he could.

☐ Usually maintains a fairly even minor dis-
crepancy between ability and effectiveness level.
Occasionally makes a group contribution.

☐ Somewhat of a lag between efficiency level and
ability. Rarely makes any contribution to
group. Methods are ineffective but he does not
deliberately waste effort.

☒ An extreme lag between ability and production.
Work is inefficiently done. Has to be contin-
ually prodded. Methods of working are wasteful.

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Number

Date

Name of Person Making Rating

Position

Adjustment Rating

Mal- adjusted	Somewhat Mal- adjusted	Average Adjustment	Fairly Well- adjusted	Well- adjusted
------------------	------------------------------	-----------------------	-----------------------------	-------------------

.....

This boy has been rated close to the somewhat maladjusted classification. This is justified by considering his total behavior pattern. He is not at all law-abiding in any life area with perhaps the exception of his participation in the physical education area. He has difficulty conforming to the rules of society but he does meet some of them such as attendance at school and he does not completely reject the environment in which he lives. He is able in his athletic participation to meet some of the demands of reality while in other areas, such as vocational planning, he has failed to meet such demands. He is consistent in his reactions although these reactions are not those characteristically termed adaptive. He appears to be making inferior progress with age but is not completely fixed at an infantile level. He does not appear to have lost control of his emotions but certainly has not learned to control himself at a particularly high level. Certainly his behavior reactions are insufficient and there is no evidence of any real contribution except his athletic participation. Considering all of these aspects in terms of a functioning sixteen year old boy, the rating made seems justified.

This rating is used for example only and you will have much more data to base your rating on than this brief behavior description presents but this may give an idea as to how the instrument may be used.

HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCHEDULES

By M. E. HAGGERTY, PH.D.

Dean of the College of Education, University of Minnesota

W. C. OLSON, PH.D.

Director of Research in Child Development, University of Michigan

and E. K. WICKMAN

The Commonwealth Fund, New York City

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SCHEDULE A: BEHAVIOR PROBLEM RECORD

Score _____

Name _____ School _____

Rating by _____ Date _____, 19____ Grade _____

DIRECTIONS FOR USING

Schedule A

Below is a list of behavior problems sometimes found in children. Put a cross (X) in the appropriate column after each item to designate how frequently such behavior has occurred in your experience with this child. A cross should appear in some column after each item. The numbers are to be disregarded in making your record. They are for use in scoring.

BEHAVIOR PROBLEM	FREQUENCY OF OCCURRENCE				SCORE
	Has never occurred	Has occurred once or twice but no more	Occasional occurrence	Frequent occurrence	
Disinterest in School Work	0	4	6	7	
Cheating	0	4	6	7	
Unnecessary Tardiness	0	4	6	7	
Lying	0	4	6	7	
Defiance to Discipline	0	4	6	7	
Marked Overactivity	0	8	12	14	
Unpopular with Children	0	8	12	14	
Temper Outbursts	0	8	12	14	
Bullying	0	8	12	14	
Speech Difficulties	0	8	12	14	
Imaginative Lying	0	12	18	21	
Sex Offenses	0	12	18	21	
Stealing	0	12	18	21	
Truancy	0	12	18	21	
Obscene Notes, Talk, or Pictures	0	12	18	21	

Directions for scoring. Transfer the numbers you have marked for the different items to the right-hand column, headed "Score." Add the numbers to secure the total score, and record the total in the upper right-hand corner of this sheet.

DIVISION III

16. Is he quiet or talkative?

Score _____

Speaks very rarely (3)	Usually quiet (1)	Upholds his end of talk (2)	Talks more than his share (4)	Jabbers (5)
---------------------------	----------------------	--------------------------------	----------------------------------	----------------

16. Is his behavior (honesty, morals, etc.) generally acceptable to ordinary social standards?

Unacceptable, Extreme violations (5)	Occasional violations (4)	Ordinarily acceptable (3)	Always acceptable (1)	Bends backward, Very rigid standards (2)
---	------------------------------	------------------------------	--------------------------	---

17. What are his social habits?

Lives almost entirely to himself (4)	Follows few social activities (3)	Pursues usual social activities and customs (1)	Actively seeks social pleasures (2)	Prefers social activities to all else (5)
---	--------------------------------------	--	--	--

18. Is he shy or bold in social relationships?

Painfully self-conscious (4)	Timid, Frequently embarrassed (2)	Self-conscious on occasions (1)	Confident in himself (3)	Bold, Insensitive to social feelings (5)
---------------------------------	--------------------------------------	------------------------------------	-----------------------------	---

19. Is his personality attractive?

Repulsive (5)	Disagreeable (4)	Unnoticed, Colorless (3)	Colorful (2)	Magnetic (1)
------------------	---------------------	-----------------------------	-----------------	-----------------

20. How does he accept authority?

Defiant (5)	Critical of authority (4)	Ordinarily obedient (3)	Respectful, Complies by habit (1)	Entirely resigned, Accepts all authority (2)
----------------	------------------------------	----------------------------	--------------------------------------	---

21. How flexible is he?

Stubborn, Hidebound, Nonconformist (5)	Slow to accept new customs and methods (3)	Conforms willingly as necessity arises (2)	Quick to accept new customs and methods (1)	Easily persuaded, Placid, Unstable (4)
---	---	---	--	---

22. Is he rude or courteous?

Rude, Insulting, Insolent (5)	Sometimes unmannerly, Saucy (4)	Observes general conventions of civility and respect (3)	Courteous, Gracious (1)	Elegant (2)
----------------------------------	------------------------------------	---	----------------------------	----------------

23. Does he give in to others or does he assert himself?

Never asserts self, Servile (5)	Generally yields (4)	Holds his own, Yields when necessary (1)	Assertive (2)	Insistent, Obdurate (3)
------------------------------------	-------------------------	---	------------------	----------------------------

24. What tendency has he to criticize others?

Never criticizes (3)	Rarely criticizes (1)	Comments on outstanding weaknesses or faults (2)	Has a critical attitude (4)	Extremely critical, Rarely approves (5)
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Total, Division III _____

SCHEDULE B: BEHAVIOR RATING SCALE

Name _____ Division I _____ Score _____
 School _____ Grade _____ Division II _____
 Rating by _____ Date _____, 19____ Division III _____
 Total _____ Division IV _____

DIRECTIONS FOR USING

Schedule B

- Do not consult anyone in making your judgments.
- In rating a person on a particular trait, disregard every other trait but that one. Many ratings are rendered valueless because the rater allows himself to be influenced by a general favorable or unfavorable impression that he has formed of the person.
- When you have satisfied yourself as to the standing of this person in the trait on which you are rating him, indicate your rating by placing a cross (X) immediately above the most appropriate descriptive phrase.
- If you are rating a child, try to make your ratings by comparing him with children of his own age.
- The masculine pronoun (he) has been used throughout for convenience. It applies whether the person whom you are rating is male or female.
- In making your ratings, disregard the small numbers which appear below the descriptive phrases. They are for use in scoring.

DIVISION I

1. How intelligent is he? _____ Score _____
 Feeble-minded (5) Dull (4) Equal of average child on street (3) Bright (2) Brilliant (1)

2. Is he abstracted or wide awake? _____
 Continually absorbed in himself (5) Frequently becomes abstracted (4) Usually present-minded (2) Wide-awake (1) Keenly alive and alert (3)

3. Is his attention sustained? _____
 Distracted: Jumps rapidly from one thing to another (5) Difficult to keep at task until completed (4) Attends adequately (3) Is absorbed in what he does (1) Able to hold attention for long periods (2)

4. Is he slow or quick in thinking? _____
 Extremely slow (5) Sluggish, Plodding (4) Thinks with ordinary speed (2) Agile-minded (1) Exceedingly rapid (3)

5. Is he slovenly or careful in his thinking? _____
 Very slovenly and illogical (5) Inexact, A dabbler (4) Moderately careful (2) Consistent and logical (1) Precise (3)

6. Is he mentally lazy or active? _____
 Interests lazy and inert (5) Lethargic, Idles along (3) Is ordinarily active (2) Eager (1) Shows hyper-activity (4)

7. Is he indifferent or does he take interest in things? _____
 Is indifferent, Unconcerned (5) Uninquisitive, Rarely interested (4) Displays usual curiosity and interest (1) Interests are easily aroused (2) Has consuming interest in almost everything (3)

[3]

Total, Division I _____

DIVISION II

8. Is he slovenly or neat in personal appearance? _____ Score _____
 Unkempt, Very slovenly (5) Rather negligent (4) Inconspicuous (2) Is concerned about dress (1) Fastidious, Foppish (3)

9. How does he impress people with his physique and bearing? _____
 Repulsive (5) Makes an unfavorable impression (4) Generally unnoticed physique and bearing (3) Makes a favorable impression (2) Excites admiration (1)

10. Can he compete with others on a physical basis? _____
 Weak and handicapped (5) Has some physical difficulties (3) Can hold his own (2) Is stronger than most (1) Has exceptional strength (4)

11. What is his physical output of energy? _____
 Extremely sluggish (5) Slow in action (3) Moves with required speed (2) Energetic, Vivacious (1) Over-active, Hyperkinetic, Meddling (4)

12. Is he easily fatigued? _____
 Shows quick exhaustion (4) Does not have ordinary endurance (3) Endures satisfactorily (1) Rarely shows fatigue (2) Unusually vigorous and robust (5)

13. How does he impress you with regard to masculine or feminine traits? _____
 (NOTE. If subject is male, rate on first line; if female, use second line.)
 Is a "sissy" (5) Slightly effeminate (3) Has average boy qualities (1) Very masculine (2) Entirely masculine, A "buck" (4)
 A "tomboy" (5) Somewhat boyish (4) Has average girl qualities (2) Quite feminine (1) A "coquette," "Clinging vine" (3)

14. Does he lack nerve, or is he courageous? _____
 White-livered, Fearful (4) Gets "cold feet" (3) Will take reasonable chances (1) Resolute (2) Daredevil (5)

Total, Division II _____

[4]

DIVISION III

15. Is he quiet or talkative?

Score

Speaks very rarely (3)	Usually quiet (1)	Upholds his end of talk (2)	Talks more than his share (4)	Jabbers (5)
---------------------------	----------------------	--------------------------------	----------------------------------	----------------

16. Is his behavior (honesty, morals, etc.) generally acceptable to ordinary social standards?

Unacceptable, Extreme violations (5)	Occasional violations (4)	Ordinarily acceptable (3)	Always acceptable (1)	Bends backward, Very rigid standards (2)
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17. What are his social habits?

Lives almost entirely to himself (4)	Follows few social activities (3)	Pursues usual social activities and customs (1)	Actively seeks social pleasures (2)	Prefers social activities to all else (5)
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18. Is he shy or bold in social relationships?

Painfully self-conscious (4)	Timid, Frequently embarrassed (2)	Self-conscious on occasions (1)	Confident in himself (3)	Bold, Insensitive to social feelings (5)
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19. Is his personality attractive?

Repulsive (5)	Disagreeable (4)	Unnoticed, Colorless (3)	Colorful (2)	Magnetic (1)
------------------	---------------------	-----------------------------	-----------------	-----------------

20. How does he accept authority?

Defiant (5)	Critical of authority (4)	Ordinarily obedient (3)	Respectful, Complies by habit (1)	Entirely resigned, Accepts all authority (2)
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21. How flexible is he?

Stubborn, Hidebound, Nonconformist (5)	Slow to accept new customs and methods (3)	Conforms willingly as necessity arises (2)	Quick to accept new customs and methods (1)	Easily persuaded, Flaccid, Unstable (4)
---	---	---	--	--

22. Is he rude or courteous?

Rude, Insulting, Insolent (5)	Sometimes unmannerly, Saucy (4)	Observes general conventions of civility and respect (3)	Courteous, Gracious (1)	Elegant (2)
----------------------------------	------------------------------------	---	----------------------------	----------------

23. Does he give in to others or does he assert himself?

Never asserts self, Servile (5)	Generally yields (4)	Holds his own, Yields when necessary (1)	Assertive (2)	Insistent, Obstinate (3)
------------------------------------	-------------------------	---	------------------	-----------------------------

24. What tendency has he to criticize others?

Never criticizes (3)	Rarely criticizes (1)	Comments on outstanding weaknesses or faults (2)	Has a critical attitude (4)	Extremely critical, Rarely approves (5)
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Total, Division III

HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCHEDULES

SCALES FOR THE STUDY OF BEHAVIOR PROBLEMS
AND PROBLEM TENDENCIES IN CHILDREN

By M. E. HAGGERTY, Ph.D.

Dean of the College of Education, University of Minnesota

W. C. OLSON, Ph.D.

Director of Research in Child Development, University of Michigan

and E. K. WICKMAN

The Commonwealth Fund, New York City

MANUAL OF DIRECTIONS

MEASURES OF MALADJUSTMENT

THE NEED FOR RATING SCALES

The authors, in making available for general use two measures of maladjustment in children, are keenly aware of the limitations of these two instruments which are described in this manual. Unwise and untrained persons may use the scales so that they increase maladjustment rather than correct the conditions that the resultant scores reveal. Such possibilities, however, inhere in many of our methods of dealing with children, with intelligence tests, with ordinary school examinations, and with the curriculum. No one of these means of directing the development of children can in any sense be used as a substitute for more dependable knowledge of children or for good judgment of teachers or of others who may essay to use these instruments. The scale should be employed with the same responsibility that an intelligent physician assumes when prescribing medical treatment for a patient.

The need is very great for a better understanding of child behavior, particularly undesirable behavior. Any instrument that furthers such understanding should be available to all who can make intelligent use of it. The scales should primarily help to stimulate, direct, and improve research in the behavior problems of children. The chief argument for publishing the scales in their present form is to help accomplish this purpose. Under wise guidance the results obtained from the use of the scales reveal more objectively the factors in a particular behavior problem. The results may be used to correct the behavior problems of individual children. Thus the scales give a clearer picture of both the weaknesses and the assets of the individual, which may be used as a basis for a program of reconstructive education. A knowledge of the limitations of the scales should be possessed by all who use them. These limitations are discussed in the following paragraphs.

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CAUTIONS

1. **Reliability of measures.** Although the reliability of the scales is far from perfect, it compares favorably with the reliability of many widely used intelligence tests. An intensive study of reliability and validity was made only of the Behavior Rating Scale, Schedule B.¹ In general, when the total scores of Schedule B are obtained from repeated ratings by the same teacher, the reliability of the total scores is .86 for elementary school children. With an abbreviated scale the corresponding correlation is .66 for preschool children. The reliability of a single rating is .92 as obtained from the correlation between halves of the scale, with a prediction for the total. Ratings of the same pupils, when made by different judges under somewhat different conditions, commonly correlated about .60 for elementary school children. With an abbreviated scale the corresponding correlation is .60 for preschool children. The correlation is .70 between the scores assigned by a typical rater in a nursery school and the averages of the scores assigned by three or four other teachers.

2. **Validity of measures.** The validity of the Behavior Rating Scale has been studied by means of ratings, clinical cases, and the subsequent histories of children. Scores on Schedule B correlate .60 with ratings from the direct approach followed in Schedule A. Fifty per cent of a group of Child Guidance Clinic cases include children who, according to teachers' ratings, fall in the highest ² ten per cent of the school population. The subsequent history of pupils who have been rated by the Behavior Rating Scale indicates that the devices have validity for the prediction of later conduct disorders in the school and community. A composite score on Schedules A and B correlated .76 with the frequency with which a group of children were referred by teachers and monitors to the office of an elementary school principal.

3. **Bias of the rater.** The bias of the persons making the ratings may result in tendencies for ratings to deviate from a genuinely objective record. Since teachers are subject to such bias to a greater or less degree, a child's score may reflect the teacher's attitude quite as truly as it does a fact about the child.

4. **Emphasis upon aggressive behavior.** An analysis of results of the use of the scales reveals a tendency to emphasize behavior of an aggressive type, and to miss certain non-aggressive types of nervous or emotional disorder the correction of which may be as important for the mental hygiene of the child as the correction of aggressive behavior which is more apparent. Other methods should be used to locate disorders in children which are of the less aggressive type. There is a possibility, although it is not certain, that this defect in the scales accounts for the fact that boys receive higher scores than girls.

5. **Significance of scores a relative matter.** The significance of a score is not clearly revealed by its actual size. Its interpretation is relative to the mean score of the group studied. For this reason it is not easy to use the individual scores to measure improvement unless their relative character is recognized.

6. **Need for supplemental data.** For individual diagnosis, the pupil's rating on the scale should be used together with all available supplemental data, such as his school record, intelligence test scores, chronological age, home conditions, health conditions, etc.

¹ For a detailed report of the reliability of Schedule B, the reader is referred to Olson, Willard C., *Problem Tendencies in Children*. University of Minnesota Press, Minneapolis; 1930.

² A high score implies undesirable tendencies.

It should also be stressed that the computation of behavior scores for a single child or for a group of children should always be considered the beginning of a program of amelioration. One is never warranted in regarding the score as a final act, that may pin a noxious label upon an individual, giving him an inescapable classification or justifying the influence of the environment in which he lives. In the school situation the rating may not infrequently point to the need for some adjustment of school conditions, for changes in the behavior of teachers, for modifications of the curriculum, or for the adjustment of other disturbing environmental factors.

Used within the limitations indicated above, these measuring devices, which have already proved valuable in the quantitative study of behavior problems in normal children, will also be useful to research agencies, clinics, school administrators, teachers, and others qualified by training and discretion to employ them. The construction, use, and significance of the schedules have been discussed in considerable detail in a series of publications.¹ Therefore the details of technique, materials, and methods involved in their development are not presented in this manual. Instead, only a brief statement is given concerning the construction, significance, reliability, and use of the schedules.

DEFINITIONS

Since there is no satisfactory standardized terminology, it will be necessary to define certain terms used in discussing the schedules. The term *behavior problem* will be used to represent the discrepancy between the capacities of the individual to adjust himself, and the demands of his environment. It follows from the definition that the question of what constitutes a behavior problem depends upon the environmental demands as well as upon the reaction possibilities — innate and acquired — of the individual. For a workable definition a behavior problem may be any activity that is objectionable to a social group — home, school, or community. A child who manifests one or more behavior problems is a *problem child*. By means of the Behavior Rating Schedules the behavior status of a problem child may be designated in quantitative terms on the basis of his relative position on a distribution of *problem tendencies* in the general school population. The use of the schedules assumes that all children are problem children, but that they are so in varying amounts.

CONSTRUCTION

The Behavior Problem Record, Schedule A, is a list of behavior problems which have been listed on the schedule in order of their frequency, as reported for a group of elementary school children. To use the schedule, the teacher records on it the problems manifested during her experience with each child. The frequency of occurrence of each problem determines the rating assigned. Each problem and each level of occurrence have been assigned a statistical weighting based on seriousness and frequency. The score for a child is the sum of the weightings for the problems recorded. High scores indicate the presence of numerous and serious problems, while low scores indicate the presence of few and less serious problems.

¹ Haggerty, Melvin E., "The Incidence of Undesirable Behavior in Public School Children," *Journal of Educational Research*, 12: 102-22; September, 1925.

Wickman, E. K., *Children's Behavior and Teachers' Attitudes*. Commonwealth Fund, Division of Publications, New York; 1928.

Olson, Willard C., *Problem Tendencies in Children*. University of Minnesota Press, Minneapolis; 1930.

The Behavior Rating Scale, Schedule B, consists of a graphic rating scale for each of thirty-five intellectual, physical, social, and emotional traits. Below the scale for each trait appear five descriptive phrases to assist the rater in making a quantitative judgment. Schedule A is designed to locate problem children through a record of overt behavior problems, while Schedule B covers personal characteristics on a variety of traits, regardless of whether or not the behavior described would be called a behavior problem. The amount of each trait in Schedule B has been assigned a weighting in terms of its relationship to Schedule A. The method may be illustrated by reference to Trait No. 11, Division II, "What is his physical output of energy?"

11. What is his physical output of energy?

	Extremely sluggish	Slow in action	Moves with required speed	Energetic, Vivacious	Overactive, Hyperkinetic, Meddling
N	15	161	457	139	18
Mean	44.9	15.5	8.8	8.4	27.1
Weight	5	3	2	1	4

The data for this trait have been interpreted as follows: Of 790 pupils, 15 who were rated as being "extremely sluggish" had an average behavior score of 44.9 on Schedule A. This is the highest average score for any of the five subdivisions of this particular trait, and therefore receives a weighting of 5. Eighteen pupils who were rated as overactive, hyperkinetic, and meddling had an average behavior score of 27.1. This, being the next to the highest average score for the five divisions, received a weighting of 4. In a similar manner the average behavior score for each remaining division was computed and a weighting assigned. It is interesting that by this weighting method personal traits may be diagnostic of a condition that is not apparent in the nature of the trait itself. The sum of the weights for the different traits is called a *problem tendency* score for the child. Taking into account the relative nature of the measures, high scores represent undesirable deviations, and low scores desirable deviations from the typical behavior of a group of children.

OTHER RELATIONSHIPS

Age and grade differences in scores on the Behavior Rating Scale are negligible, but boys show significantly greater problem tendencies than girls. The data for obtaining norms need be differentiated only according to sex. The abbreviated form of the scale used with preschool children requires, of course, a different set of norms. The majority of teachers do not differ significantly in the mean composite score of the ratings they assign on Schedule B when rating comparable groups, or when different raters judge the same group. Mean ratings on Schedule A tend to fluctuate more widely. Scores on Schedule B may be expected to correlate with achievement in school subjects to about the same extent as the usual intelligence test does, or perhaps to a slightly greater extent. An intensive analysis of the relationships among achievement, intelligence, and behavior indicates that a score in problem tendencies gives a somewhat unique contribution to the prediction of achievement.

SUGGESTED USES

The instruments lend themselves to use in a variety of experimental projects which cannot be detailed here. The two devices may be used separately or in conjunction,

but when only one is used Schedule B is recommended. Under supervision they have been used profitably in one normal school by students preparing to be teachers, and in an institute for child welfare. They provide one method of training observers in the individual study of children. Guidance clinics will find the devices useful for securing from teachers standardized reports concerning the behavior of children who are being studied. The extent to which the teacher's attitude and the child's behavior are components of the situation should be taken into account in each instance. The quantitative scores obtained should prove useful in analyzing other types of clinical data. The norms given separately for intellectual, physical, social, and emotional traits indicate roughly the major fields of maladjustment, as seen through the eyes of persons closely acquainted with the child. School principals and counselors should find the information recorded on the schedules of value in their work with individual children, and also as a survey technique to aid in choosing the children who should have the services of child guidance. The teacher herself should gain a further understanding of child behavior by using the devices in the classroom. In so doing she may also ask herself the questions, "To what extent is my own attitude a factor in the behavior reported?" and "To what extent will a change in my attitude ameliorate the undesirable condition?"

SURVEY TECHNIQUE

It is necessary for those who use these schedules to become familiar with their nature, their purpose, and their technique. In collecting a portion of the data upon which the norms are based the following elaborate procedure was employed. The problem was the rating of first-grade pupils in a large city school system. The administrative officials, supervisors, representatives of child-guidance clinics, and principals of the schools included first met with the surveyors for a general discussion of the project. A second meeting was held with the teachers who were to do the rating. At this meeting each teacher was supplied with a manual of directions for using the schedules. They were asked to rate two of their children prior to a personal consultation with the persons in charge of the investigation. This personal interview, which dealt with the details of rating, was held with the teacher in her own school, sometime during the two weeks following the general meeting. The chief purpose of the interview was to interest the teacher in the project, secure her careful cooperation, and make clear the exact procedure. After this she made the ratings of all her pupils. The completed scales and class record sheets were returned to the central office. The data were then compiled to obtain norms for interpreting the ratings.

Variations in the method of securing the records are described in the publications listed in the footnote on page 3.

DIRECTIONS FOR MAKING RATINGS

SCHEDULE A. THE BEHAVIOR PROBLEM RECORD

On the Behavior Problem Record you will find fifteen items that indicate undesirable behavior, varying in seriousness. You are to review your entire experience with each child as it is related to each item of behavior listed on the record. If the item of behavior has never occurred, make a check in the first column. If it has occurred

only once or twice, make a check in the second column. If it has occurred more than twice, but is not a constant problem, make a check in the third column. If it occurs quite regularly in the child's behavior, make a check in the fourth column. The numbers in the body of the sheet are to be disregarded in making your record. They are for use in scoring. In order to make clearer to you the meaning of each item of behavior, the following statements are given to suggest the general nature of each problem:

1. *Disinterest in School Work.* Under this heading include any action of the child that you interpret as showing lack of interest in school work.
2. *Cheating.* Consider all forms of cheating in reference to school work.
3. *Unnecessary Tardiness.* Consider his tardiness record. If the tardiness is unexcused and due to his own failures, it should be interpreted as unnecessary. Consider also the promptness with which he returns from recess periods.
4. *Lying.* Include under this head all misrepresentations of facts.
5. *Defiance to Discipline.* Consider how well he accepts authority and obeys the rules of the school.
6. *Marked Overactivity.* Consider under this head the child's physical output of energy. Marked overactivity is characterized by a general restlessness, by an inability to sit or stand still, by playing constantly with objects, by uncontrolled activity about the school and playground, by involuntary movements of the hands, feet, or other parts of the body.
7. *Unpopular with Children.* Under this head consider how well he is liked by other children.
8. *Temper Outbursts.* Consider the child's reactions to unpleasant situations and to frustrations of his behavior. Temper outbursts may be manifested by crying, by violent physical reactions, or by abusive language.
9. *Bullying.* Consider whether the child attempts to dominate his playmates by physical force and abusive language and whether he picks quarrels with smaller children. If a girl, the activity may be somewhat different. Consider whether she delights in tormenting, teasing, or making fun of other girls.
10. *Speech Difficulties.* Under this heading include stuttering or stammering, the substitution of one sound for another, and aural inactivity, as indicated by pronouncing letters or sounds incorrectly or by slurring letters or sounds.
11. *Imaginative Lying.* Under this head consider the child's tendency to tell tales not based on fact. Such lying might include claims of unusual prowess or possessions, air castles, tales of extraordinary happenings, of being pursued by animals or persons, of being persecuted, etc.
12. *Sex Offenses.* Under this head consider all acts relating to sex behavior which are objected to by conventional standards of health and morals.
13. *Stealing.* Consider the child's honesty with regard to the property of others.
14. *Truancy.* Consider unexcused (illegal) absences from school, wherein the child absents himself on his own responsibility.
15. *Obscene Notes, Talk, or Pictures.* Under this head consider whether the child circulates notes, pictures, or stories of a suggestive nature among members of the class and whether he uses filthy or profane language about the school or playground.

PROCEDURE

(1) First read carefully the directions which appear at the top of the Behavior Problem Record:

Below is a list of behavior problems sometimes found in children. Put a cross (X) in the appropriate column after each item to designate how frequently such behavior has occurred in your experience with this child. A cross should appear in some column after each item. The numbers are to be disregarded in making your record. They are for use in scoring.

(2) Next make out a record for each child in your room.

(3) When all the records have been made, score each one according to the directions at the bottom of the sheet:

Directions for scoring. Transfer the numbers you checked for the different items to the right-hand column, headed "Score." Add the numbers to secure the total score, and record the total in the upper right-hand corner of this sheet.

SCHEDULE B. THE BEHAVIOR RATING SCALE

The following instructions appear on the first page of each copy of the rating scale. Read them carefully and reread them occasionally to keep them in mind.

1. Do not consult anyone in making your judgments.
2. In rating a person on a particular trait, disregard every other trait but that one. Many ratings are rendered valueless because the rater allows himself to be influenced by a general favorable or unfavorable impression that he has formed of the person.
3. When you have satisfied yourself as to the standing of this person in the trait on which you are rating him, indicate your rating by placing a cross (X) immediately above the most appropriate descriptive phrase.
4. If you are rating a child, try to make your ratings by comparing him with children of his own age.
5. The masculine pronoun (he) has been used throughout for convenience. It applies whether the person whom you are rating is male or female.
6. In making your rating, disregard the small numbers which appear below the descriptive phrases. They are for use in scoring.

It is suggested that you make your ratings in pencil so that a change can be made easily in case of error. Your first rating may best be done in consultation with someone familiar with the method and should be in the nature of a practice exercise. When you actually start rating the entire class, it is recommended that you first rate each child on the traits in Division I, then rate each child on Division II, then on Division III, and finally on Division IV. This will enable you to concentrate your attention on fewer items at one time, and should result in greater accuracy in your judgments. Refer any questions concerning the method to someone who understands the procedure.

DIRECTIONS FOR SCORING SCHEDULE B

After all members of the class have been rated on each trait in the Behavior Rating Scale, the papers should be scored. A small number appears in parentheses under each descriptive phrase. Transfer the number you have checked for each trait to the column at the right of the page under the heading *Score*. Add the scores separately

for Division I, Division II, Division III, and Division IV. Record the scores for each division in the upper right-hand corner of the first page and add to obtain the total score. A pupil's score is the sum of the numbers under the phrases which were marked in rating the pupil. When all papers have been scored, record the results on the Class Record.

NORMS

Tables 1, 2, 3, and 4, derived from the use of the schedules, will be useful in interpreting pupils' scores obtained on the schedules.

TABLE 1

DISTRIBUTION OF SCORES ON THE BEHAVIOR PROBLEM RECORD, SCHEDULE A

SCORES	BOYS		GIRLS		TOTAL	
	FREQUENCY	PERCENTILE RANK	FREQUENCY	PERCENTILE RANK	FREQUENCY	PERCENTILE RANK
120-23			1	100.0	1	100.0
116-19			1	99.9	1	99.9
112-15	1	100.0			1	99.9
108-11	1	99.9			1	99.8
104-07	1	99.8			1	99.8
100-03	1	99.7			1	99.7
96-99	3	99.5			3	99.7
92-95			2	99.7	2	99.5
88-91	2	99			2	99
84-87	1	99	1	99.6	2	99
80-83	2	99			2	99
76-79	6	99	1	99	7	99
72-75	3	98	3	99	6	99
68-71	12	98	3	99	15	98
64-67	13	96	3	99	16	98
60-63	11	95	5	98	16	97
56-59	9	94	3	98	12	96
52-55	12	93	5	98	17	95
48-51	17	92	5	97	22	95
44-47	13	91	11	96	24	94
40-43	31	89	12	95	43	92
36-39	32	86	16	94	48	90
32-35	37	83	14	93	51	88
28-31	46	79	25	91	71	85
24-27	67	74	37	88	104	81
20-23	81	67	39	84	120	76
16-19	71	60	65	79	136	70
12-15	111	52	108	71	219	61
8-11	83	43	80	66	163	53
4-7	170	32	195	29	365	40
0	261	12	430	20	691	16
N	1098		1065		2163	
Median	13.2		6.1		8.6	

TABLE 2

DISTRIBUTION OF TOTAL SCORES ON THE BEHAVIOR RATING SCALE, SCHEDULE B

SCORE	BOYS		GIRLS		TOTAL	
	FREQUENCY	PERCENTILE RANK	FREQUENCY	PERCENTILE RANK	FREQUENCY	PERCENTILE RANK
135-139	2	99.9			2	99.9
130-134	3	99.8			3	99.9
125-129	6	99.5	2	99.9	8	99.7
120-124	10	99	2	99.8	12	99
115-119	19	98	9	99.4	28	99
110-114	21	97	10	99	31	98
105-109	25	95	18	98	43	96
100-104	40	93	15	97	55	95
95-99	70	89	30	95	100	92
90-94	61	85	39	92	100	88
85-89	96	79	58	89	154	84
80-84	90	73	74	84	164	78
75-79	120	66	98	78	218	72
70-74	132	57	95	71	227	64
65-69	172	47	141	63	313	55
60-64	187	35	215	50	402	42
55-59	180	22	202	35	382	28
50-54	136	12	194	21	330	14
45-49	68	5	122	9	190	7
40-44	26	1	58	3	84	2
35-39	9	.3	12		21	.4
N	1473		1394		2867	
Median	68.8		62.5		65.4	
Mean	72.4		65.9		69.2	
S. D. _{dis.}	18.4		16.3		17.7	

TABLE 3

DISTRIBUTION OF SCORES ON THE BEHAVIOR RATING SCALE, SCHEDULE B, BY DIVISIONS

SCORE	DIVISION I INTELLECTUAL		DIVISION II PHYSICAL		DIVISION III SOCIAL		DIVISION IV EMOTIONAL	
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS
	FREQ. PR.	FREQ. PR.	FREQ. PR.	FREQ. PR.	FREQ. PR.	FREQ. PR.	FREQ. PR.	FREQ. PR.
45	..	..	..	..	1 99.8	..	..	..
44	..	..	..	..	..	..	1 99.8	..
43	..	..	..	..	..	..	1 99.5	..
42	..	..	..	..	1 99.5	..	..	..
41	..	..	..	..	1 99	..	3 99	1 99.8
40	..	..	..	..	2 99	1 99.8	1 99	1 99.5
39	..	..	..	..	1 98	..	1 98	..
38	..	..	..	..	1 98	..	..	1 99
37	..	..	..	..	4 97	..	..	1 98
36	..	..	..	..	2 96	1 99.5	2 97	1 98
35	..	..	..	..	3 95	2 99	5 96	2 98
34	..	..	..	..	..	2 98	5 94	4 97
33	..	1 99.8	..	..	3 94	..	4 93	2 96
32	6 99	3 99	..	..	6 93	1 98	2 92	3 95
31	6 97	1 98	..	..	4 91	3 97	5 91	3 95
30	7 95	2 98	..	..	10 89	6 96	8 89	3 94
29	3 93	2 98	..	..	1 87	9 94	5 86	3 93
28	4 92	2 97	..	..	8 85	5 92	9 84	4 92
27	6 90	7 96	..	..	10 82	7 90	8 81	2 91
26	7 88	7 93	1 99.8	1 99.8	14 78	9 87	..	4 90
25	11 85	11 91	1 99.5	2 99	14 74	8 85	5 79	5 88
24	9 82	10 87	2 99	..	19 68	15 81	5 77	3 87
23	7 79	15 84	3 98	1 99	15 62	13 77	11 75	16 84
22	5 77	5 81	2 97	2 98	20 57	8 74	16 70	11 80
21	20 73	12 78	7 96	3 98	17 50	21 69	12 66	9 77
20	11 65	7 75	4 94	10 96	27 43	15 64	19 60	11 74
19	15 63	10 72	5 92	9 93	17 36	21 58	20 54	14 70
18	9 61	17 68	10 90	6 90	19 30	16 52	10 49	14 66
17	16 55	22 62	10 87	8 88	17 24	23 46	17 44	21 61
16	23 49	15 57	24 81	18 84	20 18	27 39	24 38	26 53
15	43 38	50 47	30 72	18 79	14 12	33 30	21 30	36 44
14	13 28	24 38	27 62	32 71	14 7	20 21	26 22	50 31
13	22 23	27 27	39 51	43 60	4 4	20 15	31 13	37 47
12	16 16	25 19	49 37	38 47	5 3	22 9	12 6	25 8
11	18 11	14 13	44 21	63 32	5 1	16 3	8 2	12 2
10	16 5	14 9	28 9	44 15	1 2	2 3	3 5	1 2
9	6 1	17 4	12 3	22 5	..	..	..	..
8	1 3	4 1	2 3	6 9	..	..	..	..
7	..	2 6	..	..	..	..	..	..
N	300	326	300	326	300	326	300	326
Median	16.7	15.7	13.4	12.7	21.4	18.0	18.8	16.1
Mean	18.2	17.1	14.1	13.5	22.4	18.2	20.4	18.1
S. D.	5.9	5.5	3.3	3.3	6.3	4.9	7.0	5.8

TABLE 4

DISTRIBUTION OF SCORES FOR PRESCHOOL CHILDREN ON THE ABBREVIATED FORM OF THE BEHAVIOR RATING SCALE, SCHEDULE B¹

SCORE	BOYS		GIRLS		TOTAL	
	FREQUENCY	PERCENTILE RANK	FREQUENCY	PERCENTILE RANK	FREQUENCY	PERCENTILE RANK
80-82	3	97	1	99	1	99
77-79	4	90	1	96	5	97
74-76	3	82	..	..	3	93
71-73	3	76	1	94	4	88
68-70	1	..	..	..	..	84
65-67	1	72	1	92	2	81
62-64	3	68	3	87	6	77
59-61	3	61	3	80	6	70
56-58	3	57	5	70	8	62
53-55	6	46	2	62	8	53
50-52	1	39	3	56	4	47
47-49	1	36	7	44	8	40
44-46	7	28	6	28	13	28
41-43	3	18	4	17	7	17
38-40	5	9	3	8	8	9
35-37	1	3	2	2	3	3
32-34	1	1	..	..	1	6
N	48	..	42	..	90	..
Median	55.5	..	49.6	..	53.4	..
Mean	56.6	..	52.1	..	54.5	..
S. D.	13.2	..	10.0	..	12.1	..

¹ The abbreviation consists in the omission of Items 5, 6, 8, 16, 17, 22, 24, 30, 31, and 32 of the complete form. The scores are based on a single initial rating of nursery school children at the Institute of Child Welfare of the University of Minnesota and the Child Welfare Research Station of the University of Iowa.

INTERVIEW OUTLINE

1. Number _____ 2. Grade Reg/Ret/Acc 3. Date of Birth _____
4. Date of Admission _____ 5. Intelligence Level _____

I. Interests

- A. Sports and Games
- B. Hobbies
- C. Vocational Ambitions and Plans
- D. Activity of own choice
- E. Reading Interests

Evaluation: () Anti-social or indifferent, () lack of range, only slightly interested in few things, () claims no interests or plans, () has average number of interests, () wide range of interests but somewhat limited in depth, () has some consuming interests but well balanced. Talks easily about them.
() Vocational plans are concrete and realistic.

II. School Adjustment

- A. Academic school likes or dislikes
- B. Vocational school likes or dislikes
- C. Progress satisfaction
- D. Teacher-Pupil relationships
- E. Further ambitions in way of formal training

Evaluation: () Hates all school work, waiting on working certificate, () Teachers all pick on him, () Only time he is happy is in the class room, () likes some aspects of school, can't see necessity, () average like of school, rather neutral, () thinks he's making progress in school, () likes school but doesn't have clear notion of relationships, () gets along well with teachers, () sees school as part of his total plans-makes positive statements.

III. Cottage and Campus Adjustment: Cottage# _____ Supervisor _____

- A. Relationship with supervisor
- B. Relationship with cottage mates
- C. Reaction to rules and disciplinary actions
- D. Reactions to other adults
- E. Reactions to food, clothing, work responsibilities, etc.

Evaluation: () Desiring transfer, hates supervisor, can't get along with roommate, thinks place is terrible, () mildly hostile to whole set-up, too compliant, () gets along fairly well-has average amount of dislikes, () verbalizes reasons for rules-has fair relation with supervisor and other boys-expresses group loyalty, () reacts well to cottage and campus regulations, suggests improvements in constructive way, sees positive side.

IV. Health

- A. Previous and present health evaluation
- B. Visual, auditory difficulties
- C. Appetite
- D. Sleep, Dreams, Enuresis
- E. Health Worries

Evaluation: () Many worries in regard to health, () some complaints of sleeplessness, enuresis, frequent colds, can't hear, or see, etc. () balance between complaints and positive feelings, () predominantly positive feelings in regard to health with few minor irritations, () feels vigorously healthy, nothing wrong- acts and looks it.

V. Social, Emotional, and Sexual Adjustment

- A. Making Friends

B. Prevalent mood (critical, happy, confident, ~~embarrassed~~)

C. Heterosexual Interests (Mixed group activity)

(dating)

(attitude toward)

D. Sexual Information

(Feeling of adequacy)

(Source)

(Feelings in regard to masturbation, perversions, etc.)

E. Attitudes toward Social Conventions

Evaluation: () feels friendless, embarrassed, hostile, critical, () evidence of some sexual conflict and guilt, () may be somewhat embarrassed and feel somewhat friendless and ignorant of sexual knowledge, () rather hesitant to discuss but not too concerned, () feels normal and sees himself as fairly popular, () frank, poised, not worried, confident.

VI. Family Relationships

A. Visitations and Vacations

B. Attitude toward being in Home

C. Attitudes toward Siblings

D. Conceptions of Future Relationships

E. Reality Appraisal

Evaluation: () can't discuss family, hostile, places unreal halo around family relations, () embarrassed in regard to family, thinks he is rejected, ambivalent, () feels family let him down but he can make the best of it-doesn't get enough visits or vacations, () interested in family welfare, admires successful members, () looks at family realistically, sees himself as a growing, independent individual who can stand on own feet.

VII. Miscellaneous (any outstanding attitude, emotion, or behavior that occurred during interview which does not fit other categories);

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<u>Psychologist's Adjustment Rating</u>				
Male adjusted	Somewhat mal- adjusted	Average Adjustment	Fairly Well- adjusted	Well adjusted

GUESS WHO?

No. _____ Grade _____ Date _____

Directions: Each of you has a list of names of the boys in the Home in alphabetical order. Here is a list of short descriptions that may describe certain of these boys. Write down one name for each description. Be sure you write both first and last name. The boy named by you should fit the description as nearly as possible. You may write in the name of the same boy for several descriptions if you wish. No one but the person giving this test and yourself will know whom you name so be as frank as possible.

A. He is a popular fellow on the Campus. The fellows and girls all like him.

1. _____

B. He is so homely or so unattractive that other people do not like to be around him. Nearly everyone finds him unpleasant to look at.

2. _____

C. Here is a boy who takes part in all group games. It seems like he is good in nearly all sports and really likes to play them.

3. _____

D. This boy can't seem to tell a joke so that it's funny. He seldom laughs at jokes and has to be told the point of the joke and have it explained to him.

4. _____

E. He is afraid. He won't take a dare. He is always afraid he will get hurt. Most guys say he is "chicken".

5. _____

F. This boy is a leader. He knows how to do a lot of things.
He starts games. He starts new ideas that are good. The
other guys like to follow him and do what he does.

6. _____

G. He is enthusiastic, peppy. He is always ready to tackle
a job. Doesn't very often get discouraged.

7. _____

H. This fellow never looks neat. His hair is uncombed. He
doesn't care how he looks. Sometimes he even smells badly.

8. _____

I. This fellow is good-looking. Nearly everyone wishes to be
as nice looking as he is.

9. _____

J. He always has a new joke. The jokes he tells are really
funny. He keeps the other guys laughing nearly everytime he
starts in to talk.

10. _____

K. Here is a boy who seems to be very unhappy. He seldom
smiles. He seems to be worried. He doesn't seem to enjoy
anything that other guys like.

11. _____

L. The rest of the fellows don't have much to do with this
boy. He is very unpopular. He does things that other guys
don't like.

12. _____

M. This fellow is friendly. When someone needs help, he's right there. He takes other guy's parts when the crowd is down on them. He's a good fellow to know.

13. _____

N. This guy will go out of his way to get out of a fight. He will run rather than stick up for himself. He can't take it.

14. _____

O. He is neat. His hair is usually combed. He keeps himself clean. He takes plenty of showers and never smells badly.

15. _____

P. This boy has a good sense of humor. He can take kidding without getting sore. He sometimes laughs at his own mistakes.

16. _____

Q. He spends much of his time talking about sex. He tries to get other boys to have sexual relations with him. He is frequently ~~seen taking~~ part in sexual activities in the Cottage.

17. _____

R. This boy will try anything that looks like it can be done. He will dare to do difficult things such as new dives while swimming or hard stunts. He will come right out and ask people for things when others are afraid.

18. _____

S. This fellow is hard to make friends with. He seems to like to keep by himself. He acts as if he didn't want to have any friends.

19. _____

T. He is never enthusiastic about anything. He seldom puts his whole heart in any activity. He would rather take it easy even if it means losing for his side.

20. _____

U. He always follows and does just what some other fellow tells him. He never seems to have any ideas of his own.

21. _____

V. This fellow never takes part in any active games. He sits around and reads a lot. He would rather watch than play.

22. _____

W. This boys won't refuse a fight if the other fellow is about his size and age. He can take his own part.

23. _____

X. He can't take a joke. Everytime the guys got to cutting up and pulling tricks on each other, he gets sore.

24. _____

Y. He is most always cheerful. No matter what happens he takes it good naturedly. He seems to be happy most of the time.

25. _____

Make sure you have tried to write in a name for every blank.

Instruction Sheet to Accompany
the "Guess Who" Test

Each person will be given a sheet containing the names of every boy in the study in alphabetical order. Each test blank will be passed out to the student whose name is stapled to the blank. The blank will also have the code number of the student on it. The test will be preceded by a brief discussion of the purpose of the study - that we are interested in finding out more about boys of this age, their likes, their dislikes and how well they can size each other up. They will be told that their replies will be confidential and will not be used against any boy in any manner. They will be asked to attempt to make a guess for each question but will not be forced to.

Scoring of the "Guess Who" will be after the system used by Tryon. If a boy is mentioned for a positive characterization, he will receive a plus 1 credit. Positive descriptions are A, C, F, G, I, J, M, O, P, R, W, and Y. If a boy is mentioned for a negative description, he shall receive for every mention a minus 1. Negative descriptions are B, D, E, H, K, L, N, Q, S, T, U, V, and X. Total score will be the algebraic score for each boy. It will be unnecessary to divide by total opportunity to be mentioned as the members of the group are constant on all tests.

COMPANIONSHIP CHOICE TEST

NO. _____ Grade _____ Date _____

Directions:

Each of you has before you a list of boys in the O. S. S. O. Home. This list is in alphabetical order. Find your own name. You may find the name of any other person in this study in the same manner.

Below are listed five activities which two people may do together. You all know every other fellow in this room rather well and should be able to choose three companions to join you in each activity. You should also be able to name three boys you wouldn't want to share this activity with you.

Before writing a boy's name down, make sure it is on the list; there is no penalty for misspelling, but if you are not sure, check on it. Be sure you write both first and last name as there are several with the same first names and same family names.

Make sure you choose three boys under each activity--a first, second, and third choice. Also make sure you name three boys who wouldn't be your choice. You may choose or refuse any of the fellows in this room; your choices and refusals will be known only to you and the person giving this test.

1. You have the money and the permission to go down town to a show on Saturday afternoon.

Whom would you choose from the list of boys to go with you?

Whom would you not wish to go with you?

1st _____

1st _____

2nd _____

2nd _____

3rd _____

3rd _____

2. You have been assigned a double room and you may choose any-one on the list that you wish for a roommate.

Whom would you choose for
a roommate?

Whom would you not want for
a roommate?

1st _____

1st _____

2nd _____

2nd _____

3rd _____

3rd _____

3. Some very good friends have invited you for a weekend. They have asked you to bring a friend with you.

Whom would you select?

Whom would you not wish to
go with you?

1st _____

1st _____

2nd _____

2nd _____

3rd _____

3rd _____

4. You are asked to work in the check room at the auditorium during a meeting of The American Legion. You will be permitted to keep all the tips.

Whom would you choose to
help you?

Whom would you not wish to
help you?

1st _____

1st _____

2nd _____

2nd _____

3rd _____

3rd _____

5. You are the winner of a radio contest and have won an all-expense tour to Washington D. C. for yourself and a friend.

Whom would you invite?

Whom would you not wish to
invite?

1st _____

1st _____

2nd _____

2nd _____

3rd _____

3rd _____

Instruction Sheet to Accompany
Companionship Choice Test

Each person will be given a sheet containing the names of every boy in the study in alphabetical order. The Companionship Choice Test will be given to students in accordance with the code number. The code number will be on the test form and the name stapled to the test. The persons filling out the test will tear off their names. They will be told that this exercise is a part of the larger study attempting to know more about boys' feelings, wishes, and choices. They will be requested for honest effort in helping to secure data as to patterns of choices which will not be used by any other department at the Home. For the most part, good cooperation may be expected. The directions on the test will be read and any questions answered. As papers are finished, they will be taken up.

The Companionship Test will be scored on the basis of number of choices and rejections. Bronfenbrenner states that total choices using as many criteria as we are using is an adequate index of social acceptance which is all we are interested in. We are making the assumption that the chosen boy is socially acceptable, that the unchosen boy is fairly neutral, and the rejected boy is socially unacceptable. In a relatively closed environment where it is hypothesized that peer status is even more important than where a child lives in his own home, unacceptability stands to enhance feelings of insecurity.

GROUP RORSCHACH BLANK

Name.....

Age.....

Date.....

Occupation.....

INSTRUCTIONS

You will see on the screen ten inkblot pictures.

Your task is to write down what these inkblots, or any parts of them, resemble or look like to you.

You will see each inkblot for three minutes.

Always write your answers on the right hand side of the open double page, and do not concern yourself with the left hand side until instructed to do so.

Turn the page each time the slide is changed.

Do not be disturbed if the light is not very bright while you are looking at the inkblots and writing your answers, handwriting is not important.

When the first slide is on the screen, open this blank and record your answers where it says:

"Write your answers to inkblot I here"

Number your answers for each inkblot.

INKBLOT I**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

*Shape**Color**Movement**Texture***ALTERNATE INSTRUCTIONS FOR INQUIRY**

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot I Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT II**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

INKBLOT III**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

Shape	Color	Movement	Texture

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot III Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT IV**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot IV Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT V**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

INKBLOT VI**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

INKBLOT VII**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VII Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT VIII**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot VIII Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT IX**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot IX Here

Before you turn to the next page, draw a line under your last answers.

INKBLOT X**INSTRUCTIONS FOR INQUIRY**

Put the number of your answer under any of these words if by so doing you feel you can amplify it in the way the examiner has just explained.

<i>Shape</i>	<i>Color</i>	<i>Movement</i>	<i>Texture</i>

ALTERNATE INSTRUCTIONS FOR INQUIRY

Write anything else about your answers which you think will describe them to the examiner more fully.

Where did you see your answers? Mark off the areas on this little diagram as nearly as you can.

Write Your Answer or Answers to Inkblot X Here

Before you turn to the next page, draw a line under your last answers.

This is the end, you need not turn the page again.

W D d Dd S M FM m k K FK F Fe e C' FC CF C

FOR EXAMINER'S USE
MUNROE'S CHECK LIST. (Ror.Res.Ex. 1944.8.46-70)

Number of R _____		
T/R 60" 80" (+, -) _____		
Refusal (✓) _____		
LOCATION	W (+, -, V, B) _____ Dd (+) _____ S (+) _____ Suc (r, l) _____	
CONTENT	P, Com (-) _____ O (+, B) _____ At, Sex (+) _____ Range (+, -) _____	
FORM	F% (+, -) _____ F (V, B, E) _____	
SHADING	Shading Shock (±) (✓) _____ FK, Fc (+, -) _____ c (+) _____ C' (+) _____ K, k (+) _____	
MOVEMENT	M (+, -, B, r, d) _____ FM, FM:M (+, -) _____ m (+) _____ Total Movement (+, -) _____	
COLOR	Color Shock (±) (✓) _____ FC (-, B) _____ CF, CF:FC (+, -) _____ C ₁ I, C ₂ (+) _____ Total Color (+, -) _____	
Color: Movement (+, -) _____		
Total Number of Checks _____		

FOR EXAMINER'S USE

Arranged by M. R. Harrower
Obtainable from the Psychological Corps
522 Fifth Avenue, N. Y. 18

INCOMPLETE SENTENCES BLANK -- HIGH SCHOOL FORM

Name _____ Sex _____ Age _____
School _____ Grade _____ Date _____

Complete these sentences to express your real feelings. Try to do every one.
Be sure to make a complete sentence.

1. I like _____
2. The happiest time _____
3. I want to know _____
4. At home _____
5. I regret _____
6. At bedtime _____
7. Boys _____
8. The best _____
9. What annoys me _____
10. People _____
11. A mother _____
12. I feel _____
13. My greatest fear _____
14. In the lower grades _____
15. I can't _____

(TURN PAGE OVER AND CONTINUE)

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JULIAN B. ROTTER, AUTHOR

Observation Record

Number _____ Grade _____ Age _____
Name _____ No. of _____
Date _____ Activity _____ Observation Period _____
Beginning Time _____ Hour _____
Ending Time _____
A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____
Observer _____

OBSERVATION RECORD

Number _____ Grade _____ Age _____

1. Date _____ Activity _____ Hour _____ 2. Date _____ Activity _____ Hour _____

Beginning Time _____ Ending Time _____ Beginning Time _____ Ending Time _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

3. Date _____ Activity _____ Hour _____ 4. Date _____ Activity _____ Hour _____

Beginning Time _____ Ending Time _____ Beginning Time _____ Ending Time _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

5. Date _____ Activity _____ Hour _____ 6. Date _____ Activity _____ Hour _____

Beginning Time _____ Ending Time _____ Beginning Time _____ Ending Time _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

7. Date _____ Activity _____ Hour _____ 8. Date _____ Activity _____ Hour _____

Beginning Time _____ Ending Time _____ Beginning Time _____ Ending Time _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

9. Date _____ Activity _____ Hour _____ 10. Date _____ Activity _____ Hour _____

Beginning Time _____ Ending Time _____ Beginning Time _____ Ending Time _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

A. Oral Habits _____
B. Dominative Behavior _____
C. Solitary Behavior _____

Total Number of Checks _____

Name of Observer _____