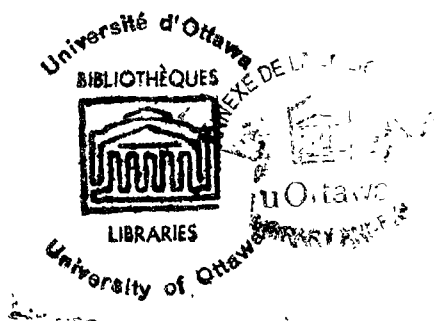


THE RELATIONSHIP BETWEEN TWO METHODS
OF APPRAISING THE INSIGHT OF HOSPITALIZED
PSYCHIATRIC PATIENTS

by Cardestal McGraw

Thesis presented to the School of
Psychology and Education of the
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CURRICULUM STUDIORUM

Cardetal McGraw was born February 29, 1932, in Ansted, West Virginia. He attended Marshall College in Huntington, West Virginia, where he was graduated in January, 1957, with the degree of Bachelor of Arts. It was also from the same institution, in May of 1957, that he received the Master of Arts degree in Psychology. The title of his thesis was: Comparison of the ACE and SCAT as Predictors of First Semester Grades of Marshall College Freshmen.

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INTRODUCTION

For many centuries there has been a belief that knowledge of the self is very important to man's effective functioning. More recently this idea has achieved recognition to a degree that many now consider insight as almost indispensable for good psychological health.

Even though this concept has achieved such importance there have been few attempts to study it experimentally. Perhaps this is because of its illusiveness to measurement. At any rate its importance to adjustment remains to a large extent inferred.

The present study is an attempt to evaluate a different approach to the study of insight. The study of this concept will not only be relegated to one component of personality, but unlike most previous studies an objective criterion will be utilized for the purpose of assessing the accuracy of judgments made about the self.

Chapter One presents a review of the literature. Toward the end of this chapter insight will be operationally defined, the problem will be stated specifically, and the hypothesis of this study will be set forth. Chapter Two is concerned with the design which includes a discussion of the tools used, a description of the subjects, an elaboration of

the interview procedure, a discussion of the reliability estimates and a description of the statistical techniques. The presentation and discussion of results will be the concern of chapter three. Here the results of the reliability estimates will be presented and the relationship between the two methods of studying insight, the accuracy of self-evaluations of ability and the appraisal of insight made by interview, will be studied. The report closes with a brief statement of the conclusions and recommendations for further research.

REVIEW OF THE LITERATURE

A survey of the literature reveals that much has been said about insight and its relationship to adjustment. It is surprising that in proportion there have been only a few attempts to study this concept experimentally. The following discussion will note some of the comments which have been made about insight as well as the predominate ways in which this concept has been studied.

According to Sweet¹ the idea that knowledge of the self is conducive to man's effective functioning has been mentioned in the literature for many centuries. Recently, according to Sweet, insight has been given even more importance in that in many personality theories and in the convictions of practicing clinicians this concept is considered central to the possession of good psychological health. Sweet points out that there seems to be a general hypothesis that insight is a very important ingredient and perhaps an essential factor for good psychological health. She adds that this hypothesis has had far reaching theoretical implications and says that it is one that is thought to have been born out by clinical experience, but which has neither been well defined nor put to test by experimentation.

¹ B. Sweet, A Study of Insight: Its Operational Definition and its Relationship to Psychological Health, unpublished Ph. D. Thesis, University of California, 1953, 143p.

Dymond², Watson³, and Grossman⁴, discuss the paramount importance given to insight by the various schools of psychotherapy and they agree also that this concept is in need of much clarification. Dymond says that there are several questions which are in need of investigation; what kinds of people have insight into themselves, what are the related life history factors, and does the lack of insight necessarily mean maladjustment? She points out that "the lack of a theoretical framework and guiding method for the understanding and production of insight is a most serious one in clinical work."

According to Watson⁵, practically every psychiatric examination includes some observations about insight and most text books of psychiatry devote some space to this concept, but he says that he has seen few papers dealing with the subject. Even though the preceding statement was made several years ago it could still apply today.

2 R. F. Dymond, "A Preliminary Investigation of the Relation of Insight and Empathy", Journal of Consulting Psychology, Vol. 12, No. 4, 1948, p. 228-233.

3 D. L. Watson, "On the Role of Insight in the Study of Mankind", Psychoanalytic Review, Vol. 25, No. 4, 1938, p. 358-371.

4 D. Grossman, "The Construction and Validation of Two Insight Inventories", Journal of Consulting Psychology, Vol. 15, No. 2, 1951, p. 109-114.

5 D. L. Watson, Op. Cit., p. 358-371.

In his discussion of insight Grossman⁶ mentions that few attempts have been made to measure insight directly and objectively. He makes a very important observation when he states that subjective criteria have been used when this concept has been studied.

Reid and Finesinger⁷ ask if a lack of insight causes symptoms and various failures in adjustment as many psychiatrists suppose. They also add that most people are notoriously blind with respect to insight into themselves. Watson⁸ in a like manner implies that most people are deficient in insight by saying that there is an impossibility of anyone attaining complete objectivity in his thinking and reasoning. He says that there is an unavoidable personal bias which colors even the most scientific studies.

Calvin and Holtzman⁹ relate that most psychologists consider that the discrepancy between the self-concept and objective reality is a common feature of maladjustment and that such discrepancies are said to represent a lack of insight. They agree that in general the preceding statement

6 D. Grossman, Op. Cit., p. 109-114.

7 J. R. Reid, and J. E. Finesinger, "The Role of Insight in Psychotherapy", American Journal of Psychiatry, Vol. 108, No. 9, 1952, p. 726-734.

8 D. L. Watson, Op. Cit., p. 358-371.

9 A. D. Calvin, and W. H. Holtzman, "Adjustment and the Discrepancy between Self-Concept and Inferred Self", Journal of Consulting Psychology, Vol. 17, No. 1, 1953, p. 39-44.

may be true but say that it does not necessarily follow without further experimental varification that the relationship between such discrepancies and severity of maladjustment is as simple and direct as it is often assumed. Chase¹⁰ using Q sorts for self, ideal self and average other person found that maladjusted persons tended to see themselves as unlike their ideals and as being considerably different from the average other person. He feels that this finding definitely reflects a realistic appraisal of the self in relation to other selves and thus concludes that this is in direct contrast with the many beliefs that the severely disturbed patients are not able to make such an appraisal.

In a like manner, Walberg¹¹ states that Schizophrenic persons are able to understand the dynamics of their disorder better than most individuals who are much better adjusted. He says that this is probably due to the Schizophrenics living so close to their unconscious and because ego barriers to deep impulses are not very strong. Further Wylie¹² says that there is no clear cut experimental evidence that insight and adjustment are related.

¹⁰ Philip H. Chase, "Self Concepts in Adjusted and Maladjusted Hospital Patients", Journal of Consulting Psychology, Vol. 21, No. 6, 1957, p. 495-497.

¹¹ Lewis R. Walberg, The Technique of Psychotherapy, New York, Grune and Stratton, 1954, 869p.

¹² Ruth C. Wylie, The Self Concept, Lincoln, Nebraska, University of Nebraska Press, 1961, 370p.

It is customary in the literature, according to Holt¹³, to speak of insight without indicating whether overt behavior tendencies, covert needs, abilities or what is being judged as if it makes no difference. He states that it is important to know just what insight is being studied. He chose to study overt need and added that other insights should be studied in order to find which kinds of insight would give the best measure of the most important kind of insight.

The preceding discussion evidences in part the confusion which exists in the literature regarding the role and importance of insight to adjustment. Some authors seem to question the common belief that there are great differences in insight among individuals when they say that most everyone is notoriously deficient in self-understanding. Others wonder just how important insight is to adjustment and still others would like to see additional experimental verification of the hypothesis that the larger the discrepancy between the self-concept and objective reality the more severe is the maladjustment problem.

There have been various attempts to measure or study insight experimentally. In one way or another most of these studies have followed the suggestion made by Allport¹⁴ in 1921.

¹³ R. R. Holt, "The Accuracy of Self-Evaluations: Its Measurement and Some of its Personalogical Correlates", Journal of Consulting Psychology, Vol. 15, No. 2, 1951, p. 95-101.

¹⁴ G. W. Allport, "Personality and Character", Psychological Bulletin, Vol. 18, No. 9, 1921, p. 441-455.

He offered that the way to measure insight would be to obtain a mathematical expression between self-ratings and the judgments of experts who presumably come close to the truth. This kind of approach is exemplified in a study by Holt¹⁵. He used ten college students who were required to make self-evaluations pertaining to overt need. Then a diagnostic council of ten members formed two groups and reached independent decisions for each subject by pooling and discussing the differences between independent ratings. Following this, there was a meeting where differences were ironed out between groups and each subject was rated by judges who had no knowledge of the subjects' self-ratings. The studies of Bandura¹⁶, Belin¹⁷, Chodorkoff¹⁸, and Smith¹⁹ also involve self-ratings and the ratings of one or more experts.

15 R. K. Holt, Op. Cit., p. 95-101.

16 A. Bandura, "Psychotherapist's Anxiety Level, Self Insight, and Psychotherapeutic Competence", Journal of Abnormal and Social Psychology, Vol. 22, No. 3, 1956, p. 333-337.

17 H. Belin, "The Prediction of Adjustment Over a Four Year Interval", Journal of Clinical Psychology, Vol. 13, No. 3, 1957, p. 270-274.

18 B. Chodorkoff, "Self-Perception, Perceptual Defense and Adjustment", Journal of Abnormal and Social Psychology, Vol. 49, No. 4, 1954, p. 508-512.

19 G. M. Smith, "Six Measures of Self Concept Discrepancy and Instability: their Interrelations, Reliability and Relations to Other Personality Measures", Journal of Consulting Psychology, Vol. 22, No. 2, 1958, p. 101-113.

Grossman's study²⁰ represents a slight modification of Allport's suggestion. He attempted the construction and validation of two insight inventories. He considered the degree of discrepancy between the manner in which the subject answered the test item and the manner in which two psychologists felt he should have answered on the basis of TAT material as indicating the amount of insight the subject possessed. The reliability of this test with therapists' ratings varied from .426 and .474 which was significant only at the .05 level of confidence.

Similarly, Arsenian²¹, and Brandt²² obtained self-ratings but instead of using a subjective criterion, the judgments of experts, they utilized objective measures. For the most part, the self-estimates of various abilities, interests and knowledge corresponded very little with what was actually indicated by the objective tests.

Other attempts to study insight have been concerned with using peer judgments as the criterion for accuracy of

20 D. Grossman, Op. Cit., p. 109-114.

21 S. Arsenian, "Own Estimate and Objective Measurement", Journal of Educational Psychology, Vol. 33, No. 4, 1942, p. 291-302.

22 R. M. Brandt, "The Accuracy of Self Estimate", Genetic Psychology Monographs, Vol. 58, No. 2, 1958, p. 55-99.

self-ratings. Sears²³ utilized this approach in his study of insight. He had subjects rate themselves and each other on a seven point scale. He found that the subjects who lacked insight into the amount of a given trait which they possessed tended to attribute a greater amount of that trait to other people than did those subjects who had an equal amount of the trait but had insight. Calvin and Holtzman²⁴, Epstein and Smith²⁵, Green²⁶, Norman²⁷, Powell²⁸ and Webb²⁹ also utilized peer judgments when they studied insight.

23 R. R. Sears, "Experimental Studies of Projection: Attribution of Traits, Journal of Social Psychology, Vol. 7, No. 2, 1936, p. 151-163.

24 A. D. Calvin, and W. H. Holtzman, Op. Cit., p. 39-44.

25 S. Epstein, and R. Smith, "Repression and Insight as Related to Reaction to Cartoons", Journal of Consulting Psychology, Vol. 20, No. 5, 1956, p. 391-395.

26 G. H. Green, "Insight and Group Adjustment", Journal of Abnormal and Social Psychology, Vol. 43, No. 1, 1948, p. 49-61.

27 R. D. Norman, "The Interrelationships among Acceptance-Rejection, Self-Other Identity, Insight into Self, and Realistic Perception of Others", Journal of Social Psychology, Vol. 37, No. 1, p. 205-235.

28 Margaret G. Powell, "Comparisons of Self Ratings, Peer Ratings, and Experts Ratings of Personality Adjustment", Education and Psychological Measurements, Vol. 8, No. 2, 1948, p. 225-234.

29 W. B. Webb, "Self-Evaluations, Group Evaluations and Objective Measures", Journal of Consulting Psychology, Vol. 19, No. 3, 1955, p. 210-212.

Wylie³⁰ after surveying studies of insight has made the observation that when subjects' reports on themselves are compared with the reports of others, that there are two classes of variables which complicate the problem of construct validity. She says that the question of the relative contribution of self-rating and ratings by others to variance in the two part score has not been sufficiently answered for most of the instruments used. According to Wylie there are many difficulties which have not been solved with respect to the measurement of insight. For instance, she relates that it has been shown that instructions make a difference in self-ratings. Further, subjects may be trying to estimate any one of an unknown combination of factors such as each peers' opinion, how the opinions will average out, and the degree to which a peer will speak for himself or will vacillate between his own ideas and the way he feels that others view the person he is rating.

In the case of peer ratings it has been shown that in some instances they are fairly accurate. Webb³¹ found that self-ratings on intelligence were unreliable, but that group ratings, when compared with Otis scores were reliable.

30 Ruth C. Wylie, Op. Cit., 370p.

31 W. B. Webb, Op. Cit., p. 210-212.

It has been pointed out by Bruner and Postman^{32,33,34} after studying experimentally perception of size, reaction time, and recognition of words, that perception is consistently not only a function of physiological factors but also the social values and the intensity of needs and drives. Weingarten³⁵ adds that it takes broad experience and understanding of oneself to lessen the effect of social values and personal need in the making of judgments; in other words to be more objective. The question is raised then concerning the subjectivity of the ratings not only of peers, but as Weingarten has indicated, the Clinical Psychologist as well.

Another approach attempts to get at insight indirectly by projection. An illustration of this kind of method can be seen in Sergant's Insight Test³⁶. Here the subject is faced

32 J. S. Bruner and L. Postman, "Emotional Selectivity in Perception and Reaction", Journal of Personality, Vol. 16, No. 1, 1948, p. 69-77.

33 -----, "Personal Values as Selective Factors in Perception", Journal of Abnormal and Social Psychology, Vol. 43, No. 2, 1948, p. 142-154.

34 -----, "Tension and Tension Release as Organizing Factors in Perception", Journal of Personality, Vol. 15, No. 4, 1947, p. 300-308.

35 Erica M. Weingarten, "A Study of Selective Perception in Clinical Judgment", Journal of Personality, Vol. 17, No. 4, 1949, p. 369-406.

36 Helen D. Sergant, "Insight Test, Prognosis in Successful and Unsuccessful Rehabilitation of the Blind", Journal of Projective Techniques, Vol. 20, No. 4, 1956, p. 429-441.

with a problem situation in which fictional characters are minimally described in order to permit projection. The subject is asked to answer two questions, what did the person do and why and how did he or she feel? The value of this instrument has not yet been determined. It is described by Jessor³⁷ as being an extremely dubious instrument the worth of which has not been proven. Engel³⁸ has used a similar approach with children. Further, in a number of the studies presented already there was some consideration of projection which was measured through the Subject's ratings of others. This can be seen above in the study by Sears.

Another and somewhat different approach is that undertaken by Dymond³⁹. Insight for her study is defined as:

The understanding of the self-other patterns or roles which the individual has incorporated and which form the basis of his expectations of others, his structuring of his life situations and the place he feels that he occupies in them.

The TAT was used to uncover these self-other patterns. The extent to which the subjects took the role of the characters mentioned in the TAT stories was taken as a measure of insight.

37 Richard Jessor, "A Review of Sargent's Insight Test", quoted by O. K. Buros (ed.), The Fifth Mental Measurement Yearbook, Highland Park, New Jersey, The Gryphon Press, 1951, p. 143.

38 Mary Engel, "The Development and Application of the Children's Insight Test", Journal of Projective Techniques, Vol. 22, No. 1, 1958, p. 13-25.

39 R. F. Dymond, Op. Cit., p. 228-233.

This study has been criticized because of a lack of reliability estimates and because of the subjective nature of assessing the degree to which the subjects took the roles of the TAT characters. This latter factor is thought to exist because the degree to which the subjects took the roles was judged by a Psychologist after reading the TAT stories.

In addition to the difficulties already mentioned the preceding studies reflect to a large measure what has been pointed out by Grossman⁴⁰, that when insight has been studied experimentally one similarity prevails and that is the subjective nature of the criterion for judging the accuracy of self-ratings. The studies by Arsenian, Brandt, and Webb mentioned above are perhaps exceptions in that they utilized objective measures to check the accuracy of self-estimates. Only Brandt's study however, attempted to relate insight, as he studied it, to adjustment.

The study to be proposed will also follow to some extent Allport's suggestion, however there will be one very important deviation in that objective test scores will be used as the criterion for accuracy of self-ratings rather than the more subjective judgments of the experts. This investigation will be concerned, in the main, with limiting

40 D. Grossman, Op. Cit., p. 109-114.

the study of insight to the ability component of personality. It is believed that a study of this particular component might possibly yield fruitful results because abilities are partly innate and thus should provide a more stable measure when opposed to other components of personality which according to some theories are continuously fluctuating. Ruch⁴¹ says that much of the complexity and flavor of the human personality grows out of the individual's reaction to his real or imagined abilities. From the foregoing it seems feasible to study insight as it is related to abilities because of a possibility that this sort of approach might ultimately shed additional light on the importance of this concept to adjustment. Granted there may be many insights in any one personality as Sears⁴² has indicated, but perhaps the study of this one component will reflect the general trend of things as far as the over all insight of an individual is concerned.

The following study is not designed to necessarily answer any of the many questions which have been raised concerning insight. It is felt that in part it answers a need for further research in this area and perhaps most important is a possibility that this sort of approach could

41 F. L. Ruch, Psychology and Life, New York, Scott, Foresman and Company, 1953, 492p.

42 R. R. Sears, Op. Cit., p. 151-163.

shed some light on the doubts which have been cast concerning insight and its relationship to adjustment.

For this study insight will be defined operationally as the degree of correspondence between judgments made about the self with respect to the possession of certain abilities and test scores which objectively measure these abilities.

For the purpose of an interview, insight will also be defined as the extent to which a patient is aware of his illness.

The problem will be to study the extent to which the accuracy of self-evaluations of the ability component of personality as measured against an objective criterion is related to the results of a more conventional way of appraising insight by interview.

The hypothesis stated in the null form is that there is no statistically significant relationship between the accuracy of nine self-ratings of abilities and the rating of insight obtained through interview.

The next chapter will present the design of this study.

CHAPTER II

EXPERIMENTAL DESIGN

This chapter presents the procedures for testing the hypothesis as it is stated in the preceding chapter. It begins with a discussion of the tools and this is followed by a description of the subjects with stress being put on the methods used to standardize the interview and testing procedures. Next, there is a discussion of the three reliability estimates and finally the chapter closes with a description of the statistical techniques which were necessary in order to study and compare the data collected from the various sources.

1. The Tools of the Experiment.

A survey of the various aptitude tests now available revealed that the Employee Aptitude Survey¹ would be very well suited for this type of study because of its reliability, validity, general population norms, and brevity. In addition, reviews of this test battery have been favorable. Adkins² says

1 J. S. Ford, et al, Manual, Employee Aptitude Survey, Los Angeles, Psychological Services, Inc., 1958, 6p.

2 Dorothy Adkins, "A Review of the Employee Aptitude Survey Tests", quoted by O. K. Buros (ed.), The Fifth Mental Measurement Yearbook, Highland Park, New Jersey, the Gryphon Press, 1959, p. 607.

that this test battery has many convenient features however, she also expresses a few disappointments most of which center around the failure of the authors to present data to substantiate some of their claims. She indicates, after analyzing each test individually, that most of them show room for improvement. Wallace³ relates that:

This is an outstandingly well thought out and well constructed battery of tests based upon unusually competent analysis. The format, instructions, and scoring keys are uniformly excellent. It deserves the attention of anyone who has a selection problem, particularly for a wide variety of occupations.

The battery is made up of ten tests which have been found to be separate measures of specific abilities. The authors designed these tests in order to obtain maximum validity per minute of testing time, therefore there are nine five minute tests and one ten minute test in the battery. Brokaw⁴ has found that the length of a test can be shortened with only moderate loss in reliability and with no significant loss in validity. The practical result of his work is, as the authors of the Employee Aptitude Survey point out, increased validity per minute of testing time. Since

3 S. R. Wallace, "A Review of the Employee Aptitude Survey Tests", quoted by O. K. Buros (ed.), The Fifth Mental Measurement Yearbook, Highland Park, New Jersey, the Gryphon Press, 1959, p. 607.

4 L. D. Brokaw, "Comparative Validities of "Short" Versus "Long" Tests", Journal of Applied Psychology, Vol. 35, No. 5, 1951, p. 325-330.

the reliability and validity studies of tests in this battery have been satisfactory, it was felt that these short tests would be appropriate for use with subjects who might have difficulty concentrating over a protracted period. The test re-test reliability coefficients given by the authors are generally high. These coefficients will be reported in the next chapter.

The validity studies report substantial correlations with the criteria which are taken to be indicative of each ability. Subsequently a few of these studies, which are listed in the test booklets, will be mentioned, however there will be no attempt to discuss all of them.

Performance on test one, Verbal Comprehension, is said to be highly indicative of reading speed and ability. The validity of this test as an indicator of reading ability correlated .83 with reading grade placement on the California Reading Test when a wide range sample of inmates were studied. The validity of test two, Numerical Ability, as an indicator of arithmetic facility is indicated by a correlation of .76 with arithmetic grade placement on the California Arithmetic Test. Test three, Visual Pursuit, was validated against the achievement of high school boys taking a basic course in electronics trouble-shooting. Scores on this test correlated .54 with a final written examination involving the reading of schematic diagrams. Additional validation studies were

conducted utilizing trainees in an electronic training course. Visual Speed and Accuracy, test four, correlated substantially with other standardized tests of clerical ability. Utilizing a wide variety of job applicants, a correlation of .82 was obtained with the Minnesota Clerical Test One. Scores on test five, Space Visualization, correlated .61 with grades on final written examinations of high school boys taking a course in electronics trouble-shooting.

Performance on the Numerical Reasoning Test, which is test six, has been demonstrated to be substantially related to mechanical aptitude. Utilizing a sample of applicants for a wide variety of positions, a correlation of .51 was obtained between this test and form BB of The Bennett Mechanical Comprehension Test. Scores on test seven, Verbal Reasoning, correlated .63 with proficiency ratings on engineering drawing trainees. Research with test eight, Word Fluency, has indicated that the mean scores on this test for persons in positions requiring extensive verbal expression are superior to the mean of the general population. Finally test nine, Manual Speed and Accuracy, was partly validated on a group of commerce students who had been placed as clerks. For those who were hired after a trial period, a mean score of 463.85 was obtained on this test. Those who were not hired were also tested and their mean score was 401.74.

It was decided not to use test ten, Symbolic Reasoning, in this study because of its complexity, therefore this investigation will be concerned with nine abilities.

A code-substitution task⁵ was employed as a screening device in order to help determine to what extent a patient could be expected to cooperate with the testing procedures. This task involved the substitution of two-digit numbers for letters according to a key in which letters of the alphabet were scrambled in a table of rows and columns. See Appendix 1.

The third and last tool was a list of questions to be used in a standardized interview for the purpose of eliciting insight into illness. The list contained incidental as well as key questions. See Appendix 2.

2. Subjects.

The subjects used in this study were sixty psychiatric patients from Spencer State Hospital in West Virginia. This hospital has a population of eleven hundred patients most of whom are suffering from one of the major psychoses. The subjects were selected in the following manner: Each ward physician was asked for a list of those patients, either

⁵ F. L. Ruch and N. Warren, Working with Psychology, New York, Scott, Foresman and Company, 4th edition, 1953, 248p.

male or female, from his ward which he felt would be accessible for testing. It was stressed that only those patients who had been hospitalized for at least two weeks and who were between the ages of twenty and fifty with no known organic involvement were desired. This minimum period of hospitalization was required so that the patient would have time to become acquainted with hospital procedures and to overcome some of the anxiety which is associated with being hospitalized. This particular age range with a minimum of twenty was felt desirable in order that an adult sample could be maintained. A maximum of fifty was enforced so as to eliminate the possibility of organicity which sometimes comes with advancing years particularly in those who have a long history of mental illness. Patients suffering from known intra-cranial pathology were also omitted mainly to save time because it was felt that this type of illness would impair the powers of concentration to a degree that accessibility would be limited especially with speed tests. In addition, it was emphasized that these subjects must be able to read and write and not be mentally deficient. One further condition was imposed and that was not to accept those patients currently undergoing ECT. This turned out not to be a very important consideration because only a very small percentage of the patients undergo this form of treatment at this particular hospital.

The above procedure yielded the names of 112 patients who were thought to be suitable subjects for this study. Each of these subjects was called to the interviewing room separately. First, he was administered the code-substitution task with the following instructions:

You are to substitute two-digit numbers for letters according to the key seen on your paper in which the letters of the alphabet have been scrambled in a table of rows and columns. The code number to be substituted for each letter is determined by the row and column in which that letter appears in the key. For example, in the key below, the letter L appears in row 2 and column 1 and is, therefore, represented by the code number 21. Similarly, the code number 12 corresponds to the letter B, which appears in row 1 and column 2. In writing down the code number corresponding to each letter, always write the row number first and the column number second. Below you see that the first two letters have been completed with the proper code number. You complete the rest.

If the subject could grasp the idea quickly and follow with an accurate completion of twenty substitutions he was considered accessible for testing. It was felt that patients who could grasp this task quickly could better understand and follow the instructions for each of the aptitude tests.

After the screening exercise only sixty patients were found to be accessible for the experimental procedure of this study. The educational level of these subjects ranged from grade five to the University level and there were thirty-eight males and twenty-two females in the

experimental sample. All of these subjects carried a staff diagnosis of Schizophrenia with the exception of two who were diagnosed as severe neurotics. The length of hospitalization ranged from two weeks to fourteen years.

Immediately after a successful completion of the code-substitution task each subject was interviewed clinically in order to appraise the degree of insight which he possessed into his illness. The interview procedure was standardized in that each subject was asked the same questions in the same order by the same interviewer. According to Cruze⁵, in his discussion of the standardized interview, 'subjects must be at ease as much as possible and respond naturally if the result of the interview is to be successful. Cruze also makes another important observation when he writes that a certain amount of flexibility must be maintained if the interviewer is to be responsive to the reactions of the interviewee. He says that if this procedure is followed it is then possible at the end of the interview to form judgments about the subject both from observation and the information obtained. The above procedure was followed in this study.

The subjects were rated into four categories which were utilized by Osgood⁶ in his study of insight. They

⁵ Wendell W. Cruze, General Psychology for College Students, Prentice-Hall, Inc., New York, 1951, 648p.

⁶ C. W. Osgood, "A Study of Insight of Psychiatric Patients", American Journal of Psychiatry, Vol. 97, No. 1, 1940, p. 152-162.

were rated as follows: those who did not acknowledge illness in any manner were considered to have no insight. Those who acknowledged illness but did not recognize the nature of such illness were classified as having slight insight. For instance, the patient who said that he was ill but that it was due to drugs, alcohol, etc. was placed in this category. Those subjects who realized that they were nervously or mentally ill and in need of some form of treatment, but who failed to recognize that some of their ideas were due to delusions were considered to have fair insight. Finally, those with more complete understanding were classified as having good insight.

After each subject was interviewed an appointment was made for testing. There was no attempt to explain to the subjects the reason why they were being tested because it has been the experience of this writer that patients in this particular population do not take favorably to anything associated with research. Instead, each patient was left merely with the idea that he was expected to take a battery of tests which was currently a part of the hospital routine.

In many cases it was necessary to deal with a very common idea that the test results would determine the length of hospitalization. It is thought that to a great extent it was impossible to dispel this idea from the mind of the patient and it is further believed that this was an incentive for cooperating with the testing procedure.

Testing was completed as soon as possible in order that the time interval would be short between the interview and the time of testing. No more than one day was allowed to elapse in any case between the interview and testing period. The procedure was to interview five patients in one day and to test them the following morning. It was felt that no more than five subjects should be tested at any one time so as to enable the examiner to observe each subject closely. The testing room was the same room in which the interview had been conducted.

The procedure for test administration complied with the recommendations which are usually made by authors who have written on the topic. Cronbac⁷ lists a number of important factors which should be taken into consideration when administering psychological tests. Following this guide such factors as outside distractions, ventilation, lighting, fatigue, time of day, and clear directions were taken into consideration in this experiment.

The testing was conducted as follows: after each subject had completed the practice exercise on each test he was told what the test measured, see Appendix 3, and was then given the following instructions:

⁷ Lee J. Cronbach, Essentials of Psychological Testing, New York, Harper and Brothers, 1949, 475p.

You are to estimate how well you will perform on this test. Think of yourself as being one in a group of one hundred people, from the general population, chosen at random from the street. You are to estimate the position, from one to one hundred, which you feel you would hold in such a group. For example, if you feel that you would make the highest score you would rate yourself as one, if you feel that you would make the lowest score you would rate yourself as one hundred. Remember this is a test of (S is told again what the test measures). Write in the upper right corner of your test form the position you feel you would occupy in this group of one hundred people.

At this point questions were permitted to clarify the instructions. The tests were administered in order and in one sitting. The time involved was one hour and a half.

3. Reliability Estimates.

In order to estimate the experimental reliability of the nine tests used, a random sample of twenty subjects was chosen from the total sample and an alternate form of the test was administered. The reliability of the self-ratings was also checked on these twenty subjects at the same time.

It was desirable to obtain some knowledge concerning the reliability of the ratings of insight into illness as they were assigned by the interviewer. In order to accomplish this fifteen subjects were selected randomly from the total sample and were interviewed four weeks later by two experienced Psychiatric Social Workers. The same standardized interview

prevailed. It was not possible to have a larger number interviewed by these workers because of the time involved.

4. Statistical Analysis.

Because of an N smaller than thirty a rank order correlation was utilized⁸ to determine the reliability coefficients for both the test re-test reliability and the reliability of the self-estimates of ability. It was necessary to use a corrected formula⁹ because of several

tied ranks:
$$\sum (X - \bar{X})^2 = \frac{n^3 - n}{12} - \sum C$$

Since the self-estimates and raw test scores were converted into centiles a test of significance was necessary to determine if the centile estimate made by each subject differed significantly from the centile he actually earned as a result of his test performance. The following formula was employed to obtain the standard error of each centile point¹⁰:

$$\sigma_c = \frac{\sigma}{4} \sqrt{\frac{PQ}{N}}$$

8 J. P. Guilford, Fundamental Statistics in Psychology and Education, New York, McGraw-Hill Book Company, Inc., 1956, 565p.

9 Allen L. Edwards, Statistical Methods for the Behavioral Sciences, New York, Rinehart and Company, Inc., 1954, 542p.

10 Lawrence T. Dayhaw, Manuel de Statistique, Ottawa, Canada, Editions de l'Universite d'Ottawa, 1958, 530p.

The standard error of the difference was then determined by:

$$\sigma_{C_1 - C_2} = \sqrt{\sigma_{C_1}^2 + \sigma_{C_2}^2 - 2r_{C_1, C_2} \sigma_{C_1} \sigma_{C_2}}$$

The correlation for the preceding formula was computed by:

$$r_{C_1, C_2} = \sqrt{\frac{\rho_1 \rho_2}{q_1 q_2}}$$

after obtaining the standard error of the difference between centile points the formula for the Critical Ratio could then be applied: $CR = \frac{D}{\sigma_D}$

In order to study the relationship between the accuracy of self-ratings of ability and the ratings of insight obtained by interview the Chi Square Technique was utilized:

$$\chi^2 = \left(\sum \frac{h^2}{n} - \frac{B^2}{N} \right) \frac{N^2}{AB}$$

Because of a trend which developed in the results the next formula was employed in order to study the relationship between those who had no insight into either their illness or their abilities and those of all other categories. Yate's correction for continuity was necessary here because of one cell frequency which was below five:

$$\chi^2 = \sum \frac{(|h - fe| - .5)^2}{fe}$$

The next chapter will be concerned with the presentation and discussion of results.

CHAPTER III

PRESENTATION AND DISCUSSION OF RESULTS

This chapter will be concerned first with reporting three estimates of reliability. The reliability of the criterion for the accuracy of self-estimates of ability will be discussed initially, then the reliability of the self-estimates will be reported to be followed by the results of the reliability estimate of the interviewer ratings. Finally, the relationship between the accuracy of self-evaluations of ability and the appraisal of insight made by interview will be studied.

1. Reliability of the Criterion.

Each test in the Employee Aptitude Survey battery has been checked for reliability¹ by obtaining alternate-forms correlations. These studies have revealed consistently high reliability coefficients. A comparison of the alternate-forms correlations presented by the authors of these tests with those obtained from the experimental reliability study, see Table I, reveals that seven of the coefficients were lower in the experimental sample and only three higher. Nevertheless, most

¹ J. S. Ford, et al, Manual, Employee Aptitude Survey, Los Angeles, Psychological Services, Inc., 1958, 6p.

Table I.-

Comparison of Alternate-Forms Correlations Presented with Tests with those from Experimental Sample.

Test	r's presented with tests N: 1,383	r's from Sample N: 20
1	.83	.762
2	.96	.767
3	.77	.714
4	.84	.761
5	.89	.909
6	.60	.635
7	.79	.472
8	.75	.558
9	.79	.839

of the coefficients from the experimental sample were high enough to indicate that the tests were fairly reliable. Test seven is regarded as questionable. In addition, all but one of these reliability coefficients were significant beyond the .01 level of confidence. Test seven was the only exception with significance reaching only the .05 level.

2. Reliability of Self-Evaluations.

Table II, displays the reliability coefficients obtained from the twenty subjects who rated themselves twice on the same abilities with a four week interval between ratings. It can readily be seen that some of these correlations are quite high. This would seem to indicate that the screening procedure was a satisfactory one in that the patients chosen were accessible enough to give a consistent evaluation of themselves to a degree which was significant beyond the .01 level of confidence. Only the self-ratings on test nine failed to be significantly reliable at this level, however again there was significance at the .05 level of confidence. It is possible that the reliability of this particular estimate was increased because of the rigidity of these subjects. Studies of Schizophrenic patients have revealed that they are more rigid than the normal controls².

² Leopold Bellak, Schizophrenia: A Review of the Syndrome, New York, Logos Press, Inc., 1958, 1010p.

Table II.-
Reliability Coefficients of Self-Estimates.

Test	r_{12} N: 20
1	.738
2	.790
3	.950
4	.809
5	.655
6	.802
7	.868
8	.680
9	.490

This being the case, one might expect such patients to be inclined to evaluate themselves consistently in the same manner.

3. Reliability of Interviewer Ratings.

The ratings of insight made by the two Psychiatric Social Workers on fifteen subjects were striking in that there was complete agreement between their ratings and those of the writer. Table III, gives a breakdown of the variety of categories involved and the ratings assigned to these subjects by the three interviewers. It would seem that the four categories used were comparatively easy to differentiate and that the high degree of agreement is indicative of the relative ease with which this kind of appraisal can be accomplished.

4. Relationship between Self-Evaluations of Ability and Appraisal of Insight by Interview.

Self-estimates which had been converted into centiles were compared with the test performance centiles by means of a Critical Ratio. This analysis revealed a rather low frequency of correct judgments at the .01 level of confidence. One subject made 7 judgments which were correct and three made 4 correct judgments. The majority however, ranged from zero to three correct self-estimates of ability, see Appendix 4.

Table III.-
Ratings of Insight into Illness as Assigned
by Three Interviewers.

Subject N: 15	Rating
1	No
2	Good
3	Slight
4	Good
5	No
6	Slight
7	Fair
8	Slight
9	No
10	Fair
11	No
12	Slight
13	No
14	No
15	Fair

When the frequency of correct judgments made by each subject regarding the nine abilities was compared with the results of the interview ratings by means of the Chi Square technique, the two methods of appraising insight were not found to be significantly related at the .01 level of confidence.

A further analysis of the data indicates that when the interview reveals no insight into illness, the individual will likewise tend to have no insight into his abilities. In order to study the significance of this trend the number of subjects who displayed no insight by either method was compared with the number of subjects in all of the other insight categories. A perfect correlation was assumed to exist between these two groups and a Chi Square was computed. After correction for continuity, significance was found beyond the .001 level of confidence. On first glance it might be said that this condition occurs because those subjects with no insight into illness are sicker and therefore have no insight into their abilities. This however, does not seem to be the case. When those who have some insight into illness and no knowledge of their abilities are compared with those who have insight into their abilities and no insight into their illness, no significant difference was found. It seems possible that many individuals do not know themselves very well in terms of their abilities. It is also probable that even though a

person has some knowledge of his abilities it does not necessarily follow that he will know himself in other ways.

A further analysis was made to determine if there was any one test which correlated significantly with insight into illness. Only test five showed any significant relationship, however significance here was only at the .05 level of confidence. This particular test is concerned with space visualization and was one of the most difficult for the subjects in this sample to understand. Significance here may have been due in part to a slight tendency for the subjects to rate themselves lower on this ability because of the complexity of this test. A comparison of the means of the estimate distributions for each of the nine tests reveals that the mean value for test five was slightly but not significantly lower than the other means. Studying each test individually revealed the same trend as was found when analyzing the overall picture; the agreement was in the direction of those individuals who manifested no insight into either their illness or their abilities. Analysis of the other eight tests revealed that there was usually disagreement between the two approaches.

It would be of interest to examine this new approach in terms of its predictive value. In other words, how accurately can insight into illness be predicted by the study of insight into abilities? Using this method it seems, from

the results of this one study, that one would be right in sixty-three cases out of one hundred. Obviously this is slightly better than chance. It is interesting to note that tests such as the MMPI predict no better than this. Ellis³ states that many studies which have been concerned with the ability of the MMPI to differentiate different diagnostic categories have revealed that its predictive accuracy is slightly better than sixty percent. Studies of the Rorschach have shown that in many cases it does not do as well. Shaffer⁴ says that with respect to the prediction of the outcome of treatment and global judgments of personality description or diagnosis that the Rorschach fails to show sufficient reliability and validity.

Another observation which is noteworthy is that the means of the centile distributions for the self-estimates of ability were much higher than the means of the centiles actually earned as a result of test performance. That is, it seems that Schizophrenic patients grossly overestimate themselves, see Table IV. Here there appears to be a very

3 Albert Ellis, "Review of the MMPI", quoted by O. K. Buros (ed.), The Fifth Mental Measurement Yearbook, Highland Park, New Jersey, The Gryphon Press, 1959, p. 86.

4 Laurance F. Shaffer, "Review of the Rorschach", quoted by O. K. Buros (ed.), The Fifth Mental Measurement Yearbook, Highland Park, New Jersey, The Gryphon Press, 1959, p. 154.

Table IV.-

Mean Values of Centile Distributions For Self-
Estimates and Test Performance.

Test	Self Estimates	Test Performance
1	77.40	46.60
2	68.55	25.52
3	69.22	28.22
4	72.47	26.23
5	64.00	28.65
6	70.72	36.55
7	68.90	36.12
8	65.68	33.60
9	65.75	54.60

definite discrepancy between the accuracy of self-judgments and objective reality. The only exception was test nine where the means were not significantly different. It is felt that this was one of the easier tests with respect to self-appraisal. The subject could see that nothing was required of him other than to place a dot in each circle, therefore he could probably make a closer estimate of his ability to perform. It would seem then that these subjects do not have much knowledge of their abilities when the data is viewed in this way. It is noted that thirty-three of the subjects carried a staff diagnosis of Paranoid Schizophrenia. Since it is known that paranoid individuals have a tendency to overevaluate themselves, one has the thought that perhaps the paranoids in this sample are mainly responsible for this trend. Examination of the data reveals however, that the other subjects also had a strong tendency to overestimate their abilities.

This finding, that the subjects of this study generally overestimated themselves, is in harmony with what has been discovered by most other investigators who were not studying Schizophrenic patients, but nevertheless investigated a wide variety of traits and individuals. The observation that there is a much greater tendency for individuals to overestimate rather than underestimate themselves has been

made by Arsenian⁵, Brandt⁶, Green⁷, and Wylie⁸. Arsenian also found that those who grossly overestimated their abilities were generally less well adjusted. While the results of the current investigation are insufficient to really evaluate his observation perhaps they do lend it some support.

In contrast, Calvin and Holtzman⁹ found that the tendency to enhance the self is inversely related to maladjustment. The results of their investigation indicated that the more poorly adjusted the individual the more self-depreciative he becomes.

The results of the current study seem to warrant the conclusion that there is very little overall relationship

5 S. Arsenian, "Own Estimate and Objective Measurement", Journal of Educational Psychology, Vol. 33, No. 4, 1942, p. 291-302.

6 R. M. Brandt, "The Accuracy of Self Estimate: a Measure of Self Concept Reality", Genetic Psychology Monographs, Vol. 58, No. 2, 1958, p. 55-99.

7 G. H. Green, "Insight and Group Adjustment", Journal of Abnormal and Social Psychology, Vol. 43, No. 1, 1948, p. 49-61.

8 Ruth C. Wylie, "Some Relationships between Defensiveness and Self-Concept Discrepancies", Journal of Personality, Vol. 25, No. 5, 1957, p. 600-616.

9 A. D. Calvin and W. H. Holtzman, "Adjustment and the Discrepancy between the Self Concept and Inferred Self", Journal of Consulting Psychology, Vol. 17, No. 1, 1953, p. 39-44.

between the two approaches of estimating insight, therefore the null-hypothesis that there is no statistically significant relationship between the accuracy of nine self-ratings of abilities and the ratings of insight through interview cannot be rejected.

It would seem, from the results of this one study, that restricting the study of insight to the ability component of personality is not a particularly fruitful area for investigation. It is possible that the experimental design had some weakness which rendered the results less meaningful. If this is the case it is felt that the manner utilized to elicit self-evaluations was perhaps too ambiguous. If some sort of simple rating scale were constructed which would render the judgments to be made about the self more concrete it is possible that the predictive efficiency of this method would be increased. In addition, this writer has recently discovered a study by Arsenian¹⁰ in which it was found that when college freshmen estimated their abilities, their estimates were more closely related to objective measurement if the ratings were obtained after the students had taken the test. Arsenian found that this resulted in a toning down of self-estimates which made them correspond more

10 S. Arsenian, Op. Cit., p. 291-302.

closely with the test scores. If a similar procedure had been carried out in this investigation there might have been a closer correspondence between the two methods of appraising insight.

Perhaps the statement made by Sears¹¹ that there are many insights within the same personality is an important consideration. If this is the case it may be that insight into any one facet of personality is not of the utmost importance to adjustment in and by itself. It may be also that insight into abilities is not the most important kind of insight as far as adjustment is concerned.

In order to study experimentally the insight discrepancy which does or does not exist between adjusted and maladjusted individuals it will be necessary to continue the search for an objective method which will measure insight satisfactorily.

For further research this study could be repeated after eliminating the two probable weaknesses mentioned above; that is, perfecting a simple rating scale and obtaining self-estimates after each test has been completed. In addition, Holt's comment¹² is recalled that other insights should be

¹¹ R. R. Sears, "Experimental Studies of Projection: Attribution of Traits", Journal of Social Psychology, Vol. 7, No. 2, 1936, p. 151-163.

¹² R. R. Holt, "The Accuracy of Self-Evaluations: Its Measurement and Some of its Personalogical Correlates", Journal of Consulting Psychology, Vol. 15, No. 2, 1951, p. 95-101.

studied in order to find which kinds will give the best measure of the most important kind of insight. With this idea in mind it might be of use to study other areas of personality utilizing a design similar to the one set forth in this paper.

SUMMARY AND CONCLUSIONS

This investigation was conducted in order to study the extent to which the accuracy of self-evaluations of the ability component of personality as measured against an objective criterion is related to the results of a more conventional way of appraising insight by interview.

Following a review of the literature which reflected the doubts which have been expressed concerning insight and its importance to adjustment, the design of the study was elaborated with particular attention being paid to reliability estimates. Following this, the results were presented and discussed. Statistical analysis revealed satisfactory experimental reliability of at least eight of the nine tests of the Employee Aptitude Survey. In addition, the self-estimates and interviewer ratings were found to be reliable.

The finding that the subjects of this study over-estimated their abilities is in harmony with what has been found by other investigators.

A further analysis revealed that the null-hypothesis that there is no statistically significant relationship between the accuracy of nine self-ratings of abilities and the rating of insight obtained through interview could not be rejected. One relationship did emerge; when the interview

indicated that an individual had no insight into his illness, the same individual also tended, to a significant degree, to have no insight into his abilities.

Since no overall relationship between the two methods of appraising insight was found it seems that the study of the ability component of personality will not reflect insight in general.

For purposes of further research this study could be repeated after making at least two major corrections in the design. Self-ratings should be obtained after each test has been administered and a more concrete method of obtaining these self-ratings should be utilized. It is further recommended that other areas of personality be studied, using a similar design, in an effort to discover which kinds of insight will give the best measure of the most important kind of insight.

BIBLIOGRAPHY

Allport, G. W., "Personality and Character", Psychological Bulletin, Vol. 18, No. 9, 1921, p. 441-455.

A very important article in that Allport proposed a method for measuring insight which set the trend for most future studies of this concept.

Arsenian, S., "Own Estimate and Objective Measurement", Journal of Educational Psychology, Vol. 33, No. 4, 1942, p. 291-302.

One of the very few studies in which an objective criterion was utilized to ascertain the accuracy of self-estimates. The method and conclusions are noteworthy.

Chase, Philip H. "Self Concept in Adjusted and Maladjusted Hospital Patients", Journal of Consulting Psychology, Vol. 21, No. 6, 1957, p. 495-497.

An investigation worthy of note because it is one of the few studies which uses psychiatric patients in the study of insight.

Ford, J. S. et al, Manual, Employee Aptitude Survey, Los Angeles, Psychological Services, Inc., 1958, 6p.

This booklet discusses the nature of the Employee Aptitude Survey, describes the individual tests, includes a discussion on using the test battery and reports on the factorial composition of the tests.

Grossman, David, "The Construction and Validation of two Insight Inventories", Journal of Consulting Psychology, Vol. 15, No. 2, 1951, p. 109-114

This author makes important suggestions concerning insight as well as an effort to construct an inventory which will measure this concept. He does not however, get away from subjectivity.

Holt, R. R., "The Accuracy of Self-Evaluations: Its Measurement and some of its Personalogical Correlates", Journal of Consulting Psychology, Vol. 15, No. 2, 1951, p. 95-101.

Holt makes significant observations concerning insight and then follows through with an investigation which corresponds with his ideas. Results of this study are questionable.

Osgood, C. W., "A Study of Insight of Psychiatric Patients", American Journal of Psychiatry, Vol. 97, No. 1, 1940, p. 152-162.

A very important study to this project in that it provided the insight categories for the assessment of insight into illness.

Sears, R. R., "Experimental Studies of Projection: Attribution of Traits", Journal of Social Psychology, Vol. 7, No. 2, 1936, p. 151-163.

A noteworthy study in that the results led Sears to believe that there are many different insights within the same personality.

Sweet, Blanche S., A Study of Insight: Its Operational Definition and its Relationship to Psychological Health, unpublished Ph. D. Thesis, University of California, 1953, 143p.

A good survey of various positions on insight. Research design questionable because of subjectivity.

Wylie, Ruth C., The Self Concept, Lincoln, Nebraska, University of Nebraska Press, 1961, 370p.

This book contains a chapter in which very pertinent observations concerning insight studies are made. Highly recommended.

APPENDIXES

APPENDIX 1

Code-Substitution Task

APPENDIX 1

Code-Substitution Task

		C O L U M N		
		1	2	3
R o w	1	X	B	N
	2	L	P	A
	3	C	S	I

S P A C I B N X L I S P B A N X L S B C
32 22

L A I X N B C P B S L P I X N C I P N S

APPENDIX 2

Questions for Standardized Interview.

APPENDIX 2

Questions for Standardized Interview

1. Where is your home?
2. How long have you lived there?
3. Where were you born and in what year?
4. How old are you?
5. How far did you go in school?
6. Did you like school? Explain.
7. What were your favorite subjects?
8. What is your occupation? Explain.
9. What is your religion?
10. Do you take your religion seriously? Explain.
11. What do you think of this hospital?
12. In what hospital activities do you participate? Explain.
13. Do you have a job assignment? Explain.
14. How is the food?
15. How are you being treated here? (If not good, explain)
16. What about the other patients bothers you the most?
17. When were you admitted?
18. Did you wish to come here? Explain.
19. What kind of hospital is this?
20. What kind of patients are there in this hospital?

21. Do you feel that you should have been sent to this kind of hospital? Explain.
22. Why were you hospitalized?
23. Do you feel as if you are or were ever nervously ill?
24. Do you think that you have had a nervous breakdown? Explain.
25. Have you noticed a change in yourself (outlook, feelings, interests, thinking, memory) If yes, explain.
26. Can you give reasons for your nervous feelings? (if appropriate)
27. How do you get along with people?
28. How do you feel about being criticized?
29. Do you feel that most people have enemies?
30. Are you exactly as you want to be, that is, do you feel a need for change or improvement?
31. Do you have imaginations?
32. What do you expect to do upon leaving the hospital?

APPENDIX 3

**Instructions Given to Subjects Relating what each of the
Nine Tests Measures**

APPENDIX 3

Instructions Given to Subjects Relating what each of the Nine Tests Measures.

- TEST 1- This is a test which gets at your ability to understand the meanings of words.
- TEST 2- This test is concerned with your ability to do simple arithmetic problems.
- TEST 3- This test measures your ability to read diagrams, that is to follow quickly and accurately with your eyes lines as they wind through other lines such as would be necessary in reading a blueprint or map.
- TEST 4- This is a test which measures your ability to see small details quickly and accurately. This is a test of clerical ability.
- TEST 5- This is a test of mechanical ability.
- TEST 6- This is a test of your ability to see relationships and to find principles underlying them.
- TEST 7- This is a test of your ability to make true judgments on the basis of the facts given.
- TEST 8- This test measures your ability to list simple words beginning with the letter S easily without regard for the meanings of these words.
- TEST 9- This is a test of your ability to make quick and accurate movements with your hand.

APPENDIX 4

**Results of Tests of Significance between Test Performance
and Self-Estimate Centiles for the Sixty Subjects.**

APPENDIX 4

Table 5.-

Results of Tests of Significance between Test Performance and Self-Estimate Centiles for the Sixty Subjects.

Subject	T E S T								
	1	2	3	4	5	6	7	8	9
1	X ^a				X				
2								X	
3	X					X			
4									X
5	X		X			X	X		
6	X					X			
7					X				
8									
9			X				X	X	X
10	X	X	X		X	X	X	X	
11									
12									
13								X	
14									
15				X			X		X
16	X							X	X
17									
18									X
19									
20									
21									
22				X	X			X	
23							X		
24		X			X				
25				X			X		
26	X				X			X	
27	X				X				X
28									
29	X					X			X
30									
31							X	X	

^a The two centiles not significantly different at .01 level.

Table 5.- (Cont'd)

Results of Tests of Significance between Test Performance
and Self-Estimate Centiles for the Sixty Subjects.

Subject	T E S T								
	1	2	3	4	5	6	7	8	9
32			X			X			
33									
34									
35					X	X		X	
36		X			X			X	
37		X							
38									
39	X					X			X
40									
41									X
42									
43									X
44	X							X	
45				X	X				
46									
47									
48									X
49					X				
50								X	X
51	X								
52	X			X	X	X			
53						X			
54	X								X
55	X								
56	X								
57	X				X				
58								X	
59			X	X			X		
60	X		X	X					

APPENDIX 5

ABSTRACT OF

The Relationship between Two Methods of Appraising the
Insight of Hospitalized Psychiatric Patients

APPENDIX 5

ABSTRACT OF

The Relationship between Two Methods of Appraising the Insight of Hospitalized Psychiatric Patients¹

The literature concerning insight reveals considerable ambiguity regarding its importance to adjustment. In addition, when this concept has been studied subjective criteria have been utilized to determine the accuracy of self-ratings. This dissertation has been concerned with evaluating a new approach to the study of insight whereby this concept is restricted to the ability component of personality in an effort to determine if it is possible to get at the insight of a person by examining just this one area. The problem was to study the extent to which the accuracy of self-evaluations of the ability component of personality as measured against an objective criterion is related to the results of a more conventional way of appraising insight by interview.

For this study insight was defined operationally as the degree of correspondence between judgments made about

¹ Cardestal McGraw, doctoral thesis presented to the School of Psychology and Education of the University of Ottawa, Ontario, January, 1962, vii-60p.

the self with respect to the possession of certain abilities and test scores which objectively measure these abilities. For the purpose of an interview, insight was also defined as the extent to which a patient was aware of his illness.

Nine tests of the Employee Aptitude Survey were chosen because these tests are brief, valid and reliable. Self-estimates of the abilities measured by these tests were obtained from sixty hospitalized psychiatric patients who had been screened for accessibility. In order that a direct comparison could be made, both self-estimates of abilities and the raw test scores were transformed into centiles. The degree of insight which each subject possessed into his illness was appraised by a standardized interview.

The results would not permit the rejection of the null-hypothesis that there is no statistically significant relationship between the accuracy of nine self-ratings of abilities and the rating of insight obtained through interview. It was concluded that the study of the ability component of personality does not seem to be useful for getting at the overall insight of an individual.