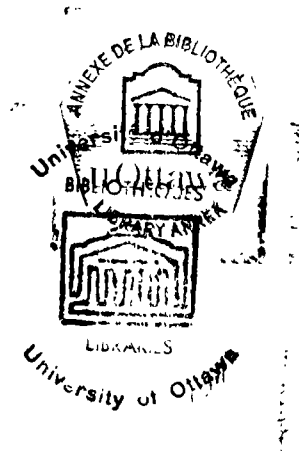


THE VALUE OF A THEMATICALLY
ADMINISTERED RORSCHACH

by Edward Vatovec

Thesis presented to the School of
Psychology and Education of the
University of Ottawa as partial
fulfillment of the requirements
for the degree of Doctor of
Philosophy.



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CURRICULUM STUDIORUM

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INTRODUCTION

Recent years have seen the invention of many useful methods of measuring different aspects of personality. The author feels, however, that a major need exists for an instrument which combines these facets of personality to give us a global rather than an atomistic picture of the individual. Therefore, the aim of this research is to devise a technique which would measure both the content and the functional properties of the personality.

This will be attempted by using a thematically¹ administered Rorschach technique in combination with the initial administration of this technique. Just as the original Rorschach aims at the functional properties of the individual's personality, so it is hoped that this new method of administering the Rorschach will uncover the content aspects of personality.

Since the Rorschach is not designed to produce stories through the original means of administration, a new method of presentation was devised. This consists of first going through the Rorschach in the usual manner, and secondly, asking the subject to make up a story using the responses

¹ This word is used in this study to mean a method of inducing a subject to tell a story on some subject.

given during the initial presentation. The productions gained in this manner will then be compared with the stories elicited by the Thematic Apperception Test (hereafter known as the TAT) by means of a common scoring technique. The TAT was selected because it helps the testee project the content aspects of personality.

Now that the aim of this study as well as the method to be used in attaining this objective has been presented, the hypothesis may be stated: There is no relationship between the results obtained with a thematically administered Rorschach and those obtained on the TAT, when both are used for the study of ideational content, and both are analyzed with a common scoring system.

Chapter I develops the basic theory underlying the new technique and the hypothesis of this research. The review of the literature carries through with an examination of the different methods by which the Rorschach has been administered in the past and finally, the value of a thematic technique, the TAT.

Chapter II sets forth the experimental design of the study with a description of the pilot study, the tools, a review of the main types of scoring schemes that have been used with thematic techniques and the reason for selecting the one used in this study. Next comes a description of the

sample and the statistical method used in evaluating the findings. The results found in the interscorer reliability study done with the scoring system ends the chapter.

Chapter III presents the findings of the study in terms of the major categories of the scoring scheme. The analysis of the data is presented in chapter IV. This includes a study of the scatter patterns of each sub-category found to be statistically significant. There follows an examination of the results obtained through this scoring method on each individual Rorschach and TAT card. The chapter ends with a presentation of some of the implications and questions raised by the study.

CHAPTER I

REVIEW OF LITERATURE

Most approaches to the study of personality seem to either see the personality picture in terms of definite content, such as wishes, fears, strivings, etc., or they aim at a presentation of the personality from the point of view of its functional properties, such as rigidity or flexibility of a person's mental make-up, the reality level of his desires, and so forth¹.

Combining these two avenues to the study of personality is suggested in a posthumous publication by Rorschach² which demonstrates the rich potentialities that may be gained in a method which combines the content with the functional properties in order to achieve a more comprehensive personality picture of the subject. This significant contribution that Rorschach made to the advancement of the psychology of personality is to often overlooked.

With this in mind one finds support by various writers that an unstructured stimulus such as the Rorschach may be a useful tool in the examination of content properties, such

1 Maria Rickers-Ovsiankina, "Some Theoretical Considerations Regarding the Rorschach Method", in the Rorschach Research Exchange, Vol. 7, No. 2, issue of April 1943, p. 41-53.

2 H. Rorschach, "The Application of the Form Interpretation", in Psychodiagnostics, A Diagnostic Test Based on Perception, Berne, Huber, 1942, p. 184-216.

as the individuals present feelings, sentiments, needs and strivings. For example, Bruner³ writes:

Generally speaking, the less the structuredness or univocality of the stimulus input, the more striking the role of directive, non-sensory factors will be in determining perceptual organization. An ink blot or a cloud picture is a nice instance of the kind of equivocal stimulus which maximizes the role of personal or directive factors in perceiving.

Murphy⁴ states that "the more tightly organized, the better structured the world pattern, the less it can be controlled by the inner pattern; the more loosely structured, the more the inner pattern controls it".

In reviewing the literature one finds that a study by Janis and Janis⁵ appears to be a stepping stone to this research. They attempted to arrive at additional psychodiagnostic material by using the Rorschach responses as stimuli for a free association test. Their hypothesis was that the concepts which the subject projects into Rorschach blots incorporate personal symbolisms tied up with basic personality trends. They further suggested that the amplification of these symbolisms might uncover personal meanings from which

3 Jerome S. Bruner, "IV. Perceptual Theory and the Rorschach Test", in the Journal of Personality, Vol. 17, No. 2, issue of December 1948, p. 160-161.

4 Gardner Murphy, Personality, A Biosocial Approach to Origins and Structure, New York, Harper, 1947, p. 351.

5 Marjorie G. Janis and Irving L. Janis, "A Supplementary Test Based on Free Associations to Rorschach Responses", in the Rorschach Research Exchange, Vol. 10, No. 1, issue of March 1946, p. 1-19.

inferences could be made about the individual's attitudes, sentiments, and conflicts.

In analyzing the stimulus characteristics of Rorschach-like cards, Zubin⁶ suggests that stories made to movement blots may have the advantage of being completely based on unstructured materials. This may prove to be an advantage over the stimulus materials available in the TAT cards according to the author.

In summary, the theory which clears the way for our hypothesis is this: that content as well as functional properties in the Rorschach can throw light on the personality picture of the subject (Rorschach); an unstructured stimulus maximizes the role that personal experiences as well as feelings, needs, and strivings are called upon to interpret the stimulus (Bruner, Murphy); that free association techniques using Rorschach responses as stimuli uncovers personal meanings and phantasy (Janis and Janis); that asking for stories about movement responses in Rorschach-like cards may elicit phantasy materials (Zubin).

Therefore, it is suggested that the Rorschach test may not only be a method which arrives at the functional properties of the personality, but a means which can elicit content information that are now obtainable from the TAT.

⁶ M. R. Harrower, Editor, Recent Advances in Diagnostic Psychological Testing, Springfield, Thomas, 1950, p. 99-120.

Since the Rorschach is not designed to produce stories through its usual method of administration, a new means of presenting the Rorschach has been devised so that stories will be obtained and a scoring technique found to analyze these stories.

The hypothesis of this study is that there is no relationship between the results obtained with a thematically administered Rorschach test and the TAT when both are used for the study of ideational content analyzed with the help of a common scoring system.

With the problem and the hypothesis stated the remainder of this chapter will deal with the different ways that the Rorschach has been administered in the past in order to learn if this new method of administration has ever been utilized. In addition, the research done with a thematic technique, the TAT, will be examined in order to ascertain the value of such a technique.

1. Different Administrations of the Rorschach.

Since the publication of Herman Rorschach's Psychodiagnostics⁷ a tremendous amount of research⁸ has been put forth of this test. With the outbreak of war numerous new

⁷ Hermann Rorschach, Psychodiagnostics, A Diagnostic Test Based on Perception, Berne, Huber, 1942, 226 p.

⁸ Bruno Klopfer, et al., Developments in the Rorschach Technique, Vol. II, New York, World Book, 1956, p. 657-776.

techniques were developed to act as screening devices in the detection of psychopathology. One of the prime requisites for such techniques had to be the ability to screen a large number of subjects in the shortest possible time. The first such device and therefore the first difference in the usual manner of administration of the Rorschach was the Group Method by Harrower-Erickson⁹. In this group method the ten plates are projected on a screen for three minutes. A special booklet is used for the subjects to write in and the instructions for the test are essentially the same as in the individual procedure. Several investigators, notably Hertz¹⁰, Lindner and Chapman¹¹, and Sender¹², have modified the Harrower-Erickson Group Method in some details but in most cases these modifications seem unimportant.

Another attempt at detecting in the shortest possible time various types of disturbances was the Multiple-Choice

9 M. R. Harrower-Erickson, "Directions for Administration of the Rorschach Group-Test", in the Rorschach Research Exchange, Vol. 5, No. 3, issue of July 1941, p. 145-153.

10 Marguerite R. Hertz, "Modification of the Rorschach Ink Blot for Large Scale Application", in the American Journal of Orthopsychiatry, Vol. 13, No. 2, issue of April 1943, p. 191-211.

11 R. M. Lindner and K. W. Chapman, "An Eclectic Group Method", in the Rorschach Research Exchange, Vol. 6, No. 4, issue of October 1942, p. 139-146.

12 Sadie Sender, "The Influence of Variations in Rorschach Group Method Administration Upon the Scorability of the Records", in the Rorschach Research Exchange, Vol. 7, No. 2, issue of April 1943, p. 54-69.

Rorschach introduced by Harrower-Erickson¹³. On receiving the Rorschach cards or looking at slides in group sessions the subject is presented with ten alternative answers and asked to pick the one which in the subjects opinion is the best description of the blot or any part of the blot. Five of these ten answers have been chosen from the records given by healthy individuals while the remaining five are from records of persons with various types of psychological disturbances. In the light of investigations with this procedure the author has developed an amplified version of the Multiple-Choice¹⁴ technique. In this method the subject is offered thirty rather than ten choices for each of the ten cards. He is asked to underline three choices for each inkblot, one from each of three groups. The subject may check as many additional responses as he wishes.

Another adaption of the Harrower-Erickson Multiple-Choice Test is the one formulated by Eysenck¹⁵ in an attempt to increase the reliability of the original technique. The

13 M. R. Harrower-Erickson, "A Multiple Choice Test for Screening Purposes", in Psychosomatic Medicine, Vol. 5, No. 4, issue of October 1943, p. 331-341.

14 M. R. Harrower and M. E. Steiner, Large Scale Rorschach Techniques, A Manual for the Group Rorschach and Multiple Choice Tests, Second Edition, Springfield, Thomas, 1951, p. 219-220.

15 H. J. Eysenck, "A Comparative Study of Four Screening Tests for Neurotics", in the Psychological Bulletin, Vol. 42, No. 9, issue of November 1945, p. 659-662.

subject is presented with nine alternate responses for each ink blot and asked to rank them in order of applicability, i.e. putting a number one after the response most like the ink blot, a number two after the response second most like the blot, etc., down to a number nine after the response least like the ink blot. It was found that this method of scoring increases the reliability of the test for screening neurotics.

The latest modification of the Multiple-Choice Rorschach was proposed by O'Reilly¹⁶ when she describes an objective method in differentiating normals, neurotics, and psychotics. Twelve responses are given for each card (four normal, four neurotic, and four psychotic) with the individual being told to check two of the twelve responses. The preliminary results suggest that the test is a highly valid and reliable method for differentiating diagnostic groups.

In still another means of administrating the Rorschach, Weisskopf¹⁷ found that when the Rorschach was given under the usual instructions and once with only ten seconds of exposure for each card the Rorschach method given under the pressure

¹⁶ P. O. O'Reilly, "The Objective Rorschach, A Suggested Modification of Rorschach Technique", in the Journal of Clinical Psychology, Vol. 12, No. 1, issue of January 1956, p. 27-31.

¹⁷ Edith A. Weisskopf, "The Influence of the Time Factor on Rorschach Performances", in the Rorschach Research Exchange, Vol. 6, No. 3, issue of July 1942, p. 128-136.

of time appears to isolate the "real" personality from super-imposed layers. But the author states that no general conclusions should be made from her small sample of ten. In what appears to be a follow-up of the previous study although better controlled is the research done by Stein¹⁸ in attempting to determine to what extent personality factors are reflected by presenting the Rorschach cards by tachistoscope at different exposure times. The results suggest that limiting time puts a stress on the subjects resources so that conditions are maximized for obtaining covert material.

Another method introduced as a time-saving devise is the self-administered Rorschach as reported by St. Clair¹⁹ and Munroe²⁰. The subjects are given the cards and they write their responses to each card. Inquiry can be made by the examiner if needed after a quick examination of the protocols.

In an attempt to find whether significant inaccuracies would be produced in shortening the Rorschach test, Valentine²¹

18 Morris I. Stein, "Personality Factors Involved in the Temporal Development of Rorschach Responses", in the Journal of Projective Techniques, Vol. 13, No. 4, issue of December 1949, p. 355-414.

19 Walter F. St. Clair, "The Self-Recording Technique in Rorschach Administration", in the Rorschach Research Exchange, Vol. 7, No. 3, issue of July 1943, p. 109-118.

20 Ruth Munroe, "An Experiment with a Self-Administering Form of the Rorschach and Group Administration by Examiners without Rorschach Training", in the Rorschach Research Exchange, Vol. 10, No. 2, issue of June 1946, p. 49-59.

21 Max Valentine, "Experimental Abridgment of the Rorschach Test", in the Journal of Clinical and Experimental Psychopathology, Vol. 7, No. 2, issue of June 1951, p. 157-169.

using sixty subjects administered an abridged set (Cards I, II, VI, VIII, X) followed by the other five plates. Variability of scoring was not appreciably increased using the abridged set for a mean correlation of .93 was obtained between abridged scores and total scores.

A supplementary test based on free associations to Rorschach responses is reported by Janis and Janis²². The subjects own response to the individual Rorschach is used as the stimuli for spontaneous associations in an attempt to derive additional psychodiagnostic material. Baker and Creager²³ attempt to apply a rating scale technique for administering and scoring the Rorschach test by a group method. Rorschach cards were fastened in a loose-leaf type of binder by rings so it could be self-administered. A list of responses were given and the subject instructed to rate the responses according to how much the item is like what he saw in the ink blot. A scale where four represented excellent likeness and 0 as not seeing the response was used.

22 Janis and Janis, Op. cit., p. 1-19.

23 Lawrence M. Baker and John A. Creager, "Rating Scale Technique Applied to Rorschach Responses", in the Journal of Clinical Psychology, Vol. 10, No. 4, issue of October 1954, p. 374-375.

2. The Value of a Thematic Technique.

The possibility of using pictures to elicit stories is not a new procedure, but one which was investigated first during the early part of this century. Brittain's²⁴ work which appeared in 1907 used a series of nine pictures which he presented to a group of children asking them to write stories about the pictures. From his results Brittain concluded that the correspondence of a particular kind of physical activity, affective life, and imaginal activity reflected causal relationship and suggested the possibility that these three aspects of life are mutually interactive. A year later Libby²⁵ published a similar study of the relationship between the imagination and the feelings of school children. However, it was not until a number of years later that the psychiatrist Schwartz²⁶, while working at Court of Juvenile Research, developed the technique as his Social Situation Picture Test which he used as an aid in psychiatric interviewing of delinquent children. The test never achieved wide prominence

²⁴ Horace L. Brittain, "A Study in Imagination", in the Pedagogical Seminary, Vol. 14, No. 2, issue of June 1907, p. 137-207.

²⁵ Walter Libby, "The Imagination of Adolescents", in the American Journal of Psychology, Vol. 19, No. 2, issue of April 1908, p. 249-252.

²⁶ L. A. Schwartz, "Social-Situation Pictures in the Psychiatric Interview", paper presented at the Meeting of the American Orthopsychiatric Association, 1931, found in Silvan S. Tomkins, The Thematic Apperception Test, The Theory and Technique of Interpretation, New York, Grune, 1947, p. 3.

because of the limited scope of the pictures and probably because standardization was made difficult by the serial questioning in which each successive question depended on the children's response to the previous question.

It was from this background that Morgan and Murray²⁷ in 1935 reported a technique that is only surpassed by the Rorschach in use by psychologist today. Murray and his collaborators²⁸ studied fifty-one men of college age for a two and one-half year period with a number of techniques in attempting to fathom personality structure. Murray felt that the TAT was the most fruitful of the methods utilized. He states that the stories suggested by the TAT require the subject to draw on his past experiences, his phantasies and his anticipations of the future. What comes most readily to the mind under the stress of the stimuli is the subjects own feelings, emotions, and attitudes, and although attending to the material the individual talks mostly about himself. Murray concludes that under most circumstances the individual is certain to expose more than he would ordinarily confess or even more than he knows.

27 Christiana D. Morgan and Henry A. Murray, "A Method for Investigating Fantasies, The Thematic Apperception Test", in the Archives of Neurology and Psychiatry, Vol. 34, No. 2, issue of August 1935, p. 289-306.

28 Henry A. Murray, et al., Explorations in Personality, A Clinical and Experimental Study of Fifty Men of College Age, New York, Oxford, 1938, xii-761 p.

In the years since the introduction of the TAT many research problems have been attempted with this tool. The following studies were selected to be reviewed because it was felt that the design and sample of these studies were more adequate and therefore more convincingly demonstrate the value of this technique in the fields of psychodiagnosis, psychodynamics and psychotherapy.

Harrison²⁹, using forty patients suffering from a functional mental disorder checked the results of a personality sketch made up from TAT stories with hospital case histories. He found that biographical and personality information were deducible from the stories with a high degree of validity (83%) when hospital case records were used as the validating criterion. In addition psychiatric diagnosis and intelligence quotients were inferred with reasonably high accuracy.

In another study this same author³⁰ found that when the TAT's were given by a person other than the experimenter the results showed that biographical and personality information, psychiatric diagnosis and intelligence could be deduced

29 Ross Harrison, "Studies in the Use and Validity of the Thematic Apperception Test with Mentally Disordered Patients, II. A Quantitative Validity Study", in Character and Personality, Vol. 9, No. 2, issue of December 1940, p. 122-133.

30 -----, "Studies in the Use and Validity of the Thematic Apperception Test with Mentally Disordered Patients, III. Validation by the Method of 'Blind Analysis'", in Character and Personality, Vol. 9, No. 2, issue of December 1940, p. 134-138.

with fair accuracy. However, these results when compared with his first study suggests that behavior cues have some facilitating value.

Masserman and Balken³¹ gave the TAT to fifty patients with various forms of neuroses and psychoses. They reported that the phantasies produced are in accord with, and in some cases supplement the clinical evaluation of the psychodynamisms of the subject's neurotic or psychotic reactions. They add that in certain respects the phantasies are of value in psychiatric diagnosis, in prognosis, and in estimating the progress of psychotherapy.

Jaques³², using a rapid method of analyzing the TAT, reports that the consistent manner in which inner strivings and conflicts revealed by the TAT were verified by subsequent analysis and therapy justifies the conclusion that this test is a useful aid in the study of neurotic patients. In addition, this technique can be used as a psychotherapeutic method in helping the patient gain insight into some of his problems.

31 J. H. Masserman and E. R. Balken, "The Clinical Application of Phantasy Studies", in the Journal of Psychology, Vol. 6, First Half, issue of July 1938, p. 81-88.

32 Elliot Jaques, "Clinical Use of Thematic Apperception Test with Soldiers", in the Journal of Abnormal and Social Psychology, Vol. 40, No. 4, issue of October 1945, p. 363-375.

In a study of ROTC men and leadership qualifications Murray and Stein³³ used only five pictures projected on the screen to which the men wrote five minute stories to each picture. Each set of five stories were scored according to the strength of eight variables, three of which had been found in previous studies to be positively correlated with leadership capacity and five variables which had been found to be negatively correlated. The rank order of the subjects in terms of total score (the sum of the positive variables minus the sum of the negative variables) correlated well with the rank order of the leadership qualifications as judged by their superior officers.

Rosenzweig and Isham³⁴ found that when the TAT was administered to both the mental patients and their relatives important complementary psychodynamics may be revealed. They found that information so obtained can confirm and extend the data elicited by the usual methods of interview and history-taking, especially by throwing into relief the points at which the patients projected world and those of his intimate associates correspond or conflict.

33 Henry A. Murray and Morris Stein, "Note on the Selection of Combat Officers", in Psychosomatic Medicine, Vol. 5, No. 4, issue of October 1943, p. 386-391.

34 Saul Rosenzweig and A. C. Isham, "Complementary Thematic Apperception Test Patterns in Close Kin", in the American Journal of Orthopsychiatry, Vol. 17, No. 1, issue of January 1947, p. 129-142.

The value of the TAT as a psychotherapeutic device has been reported by Bettelheim³⁵, Deabler³⁶, and Luborsky³⁷. They believe that there are inherent therapeutic gains in the TAT if the interpretations and evaluations of the stories be left primarily with the client. These interpretations made by the client seem to shed new light on the meaning of the stories and demonstrates more clearly the character of his defenses enabling the client to arrive at his own insights into his condition.

Another use for the TAT has been found by Bellack, Levinger and Lipsky³⁸ who reported the ability of this test in studying developmental changes in a personality, for they have found that it is a sensitive enough instrument to reflect maturational processes in adolescence and could be profitably used for much needed longitudinal studies of personality in the normal and the disturbed under treatment.

35 Bruno Bettelheim, "Self-Interpretation of Fantasy, The Thematic Apperception Test as an Educational and Therapeutic Device", in the American Journal of Orthopsychiatry, Vol. 17, No. 1, issue of January 1947, p. 80-100.

36 Herdis L. Deabler, "The Psychotherapeutic Use of the Thematic Apperception Test", in the Journal of Clinical Psychology, Vol. 3, No. 3, issue of July 1947, p. 246-252.

37 Lester Luborsky, "Self-Interpretation of the TAT as a Clinical Technique", in the Journal of Projective Techniques, Vol. 17, No. 2, issue of June 1953, p. 217-223.

38 Leopold Bellak, Leah Levinger and Esther Lipsky, "An Adolescent Problem Reflected in the TAT", in the Journal of Clinical Psychology, Vol. 6, No. 3, issue of July 1950, p. 295-297.

Combs³⁹ compared the TAT and autobiographies of forty-six university students based upon the analysis of individuals "desires" made from each instrument according to the author's scoring system⁴⁰. Although there was a large area of overlap in the two instruments, the TAT appeared to reveal more strongly desires with respect to the present and future, socially unacceptable and more violent categories, e.g. desires for sexual gratification, or to abandon parents, etc., and expression of violent feelings such as desire to punish, to defy convention, and to die.

In an attempt to investigate projection experimentally Bellak⁴¹ gave seven subjects ten TAT cards. One group of three got six through ten first, then pictures one through five. The remaining four subjects had the pictures presented in the proper order one through ten. After the fifth picture in each group sharp criticism was made of the stories being told. The underlying assumptions were that the subjects would resent the criticism by the examiner and project their aggression,

39 Arthur W. Combs, "A Comparative Study of Motivations as Revealed in Thematic Apperception Test Stories and Autobiography", in the Journal of Clinical Psychology, Vol. 3, No. 1, issue of January 1947, p. 65-75.

40 -----, "A Method of Analysis for the Thematic Apperception Test and Autobiographies", in the Journal of Clinical Psychology, Vol. 2, No. 2, issue of April 1946, p. 167-174.

41 Leopold Bellak, "An Experimental Investigation of Projection", in the Psychological Bulletin, Vol. 39, No. 7, issue of July 1942, p. 489-490.

by introducing more aggression into these stories than into the ones told without criticism. The stories were then analyzed as to the number of verbs and nouns connoting aggression. The hypothesis of projection could be considered correct as the overall difference in aggression between stories with and without criticism was found to be significant ($P = 0.017$). Additional data on twenty-five more cases supported these results.

Balken and Masserman⁴² analyzed the TAT phantasies of fifteen psychoneurotic patients, made up of the conversion-hysterical, anxiety state, and obsessive-compulsive by using formal categories such as the average number of words per phantasy, the number of predicative, participial and attributive adjectives, etc. The results showed that the underlying psychodynamisms of these three groups have characteristic reflections in the phantasy production which can be differentiated by the specific criteria outlined in this study.

Rotter⁴³, after developing a method for analyzing TAT productions gave the test to a group of twenty patients of various functional conditions. These analyzed protocols of

⁴² E. R. Balken and J. H. Masserman, "The Language of Phantasies of Patients with Conversion Hysteria, Anxiety State, and Obsessive-Compulsive Neuroses", in the Journal of Psychology, Vol. 10, First Half, issue of July 1940, p. 75-86.

⁴³ Julian B. Rotter, "Studies in the Use and Validity of the Thematic Apperception Test with Mentally Disordered Patients, I. Method of Analysis and Clinical Problems", in Character and Personality, Vol. 9, No. 1, issue of September 1940, p. 18-34.

the patients stories were then checked against a complete case history of each subject. The results showed that the data obtained from most of the subjects made helpful contributions to the understanding of the patients, e.g. bringing in new information as to conflicts and possible etiological factors, bearing out uncertain interpretations of the psychiatrist and amplifying the picture of the present personality. In addition, the author states that the material that was secured would have appeared only after intense probing and psychotherapy. The author also found that the test offered several diagnostic aids and he was able to diagnose correctly eighteen of his group of twenty.

Using a specially drawn up group of TAT cards, Henry⁴⁴ attempted to see whether they would yield valid and useful data on the personalities of children in other societies and if the test would contribute to an understanding of the society as a whole. This research answered both these questions in the affirmative when Hopi and Havaho indian children were used as subjects. In addition it shows that the TAT provides data on the intellectual and emotional aspects of personality and upon the emotional significance of life experiences. The author further concludes that the TAT data

⁴⁴ William E. Henry, "The Thematic Apperception Test in the Study of Culture-Personality Relations", in the Genetic Psychological Monograph, Vol. 35, First Half, issue of February 1947, p. 3-135.

was of sufficiently high validity and made sufficient contribution to the study of the society to justify its inclusion in future studies of personality and culture.

The thought content of the TAT Rapaport⁴⁵ finds reflects the subject's attitude toward figures in his past and present environment, the aspirations and strivings he himself has encountered and the method which he used in pursuing and coping with them. This interrelation of attitudes, strivings, etc., can be utilized to better understand how the subject envisages his world and environment and be of tremendous help in the therapeutic situation.

Leitch and Schafer⁴⁶ have found the TAT to be clinically useful in differentiating between psychotic and maladjusted nonpsychotic children. By using twelve characteristics found in the TAT productions of psychotic children, the authors were able to differentiate them from the nonpsychotic children TAT records. The authors, although using a large battery of tests, have found the TAT crucial in such cases.

⁴⁵ David Rapaport, "The Clinical Application of the Thematic Apperception Test", in the Bulletin of the Menninger Clinic, Vol. 7, No. 3, issue of May 1943, p. 106-113.

⁴⁶ Mary Leitch and Sarah Schafer, "The Study of the Thematic Apperception Tests of Psychotic Children", in the American Journal of Orthopsychiatry, Vol. 17, No. 2, issue of April 1947, p. 337-342.

Hartman⁴⁷ reports the results of a comprehensive study using thirty-five cases of delinquent and dependent boys of average or better intelligence between the ages of thirteen and seventeen. An examiner, psychiatrist, and an expert in the TAT, who interpreted the protocols blindly, rated the subjects independently on thirty-four personality variables. The ratings of the three were then compared for each variable and for each case as a whole. The quantitative results bring out two general points, first that the TAT reflects personality in a constant and therefore measurable fashion, that is that the present findings indicate on the whole a constant and direct relationship between responses on the TAT and overt behavior; and second, that relatively simple and objective components of the TAT responses are significantly linked with personality characteristics. The author concludes that the data as a whole presents strong evidence for the value of the TAT in clinical diagnosis of personality.

47 A. A. Hartman, "An Experimental Examination of the Thematic Apperception Test in Clinical Diagnosis", in the Psychological Monographs, Vol. 63, No. 8, issue of (no month) 1949, p. 1-48.

Sarason^{48,49} attempted to determine if the TAT could be administered to mentally deficient boys and girls. In addition he attempted to learn if the data secured gave a revealing picture of the motivational life of the subject and the possible clinical use of this test with the mentally deficient. His studies revealed that plausible and coherent stories would be given by this clinical group and the value appeared to lie in the technique ability to reveal attitudes which are necessary to know if proper placement of the individual in the community is to be made.

DesLauriers and Halpern⁵⁰ report that they have found the TAT to be a useful tool in evaluating what might be called the conceptual approach which schizophrenic children use in facing situations. A number of useful signs regarding the content of the phantasy found in such cases are presented, and the authors report that they have found the TAT particularly useful in bringing to light certain of the psychological

48 Seymour B. Sarason, "The Use of the Thematic Apperception Test with Mentally Deficient Children, I. A Study of High Grade Girls", in the American Journal of Mental Deficiency, Vol. 47, No. 4, issue of April 1943, p. 414-421.

49 -----, "The Use of the Thematic Apperception Test with Mentally Deficient Children, II. A Study of High Grade Boys", in the American Journal of Mental Deficiency, Vol. 48, No. 2, issue of October 1943, p. 169-173.

50 Austin DesLauriers and F. Halpern, "Psychological Tests in Childhood Schizophrenia", in the American Journal of Orthopsychiatry, Vol. 17, No. 1, issue of January 1947, p. 57-67.

mechanisms used by the schizophrenic child in dealing with the various problems confronting him.

The preceding pages have introduced the problem and the hypothesis of this research. In addition the different methods of administering the Rorschach test have been reviewed. Finally, the value of a thematic technique, the TAT, in the fields of psychodiagnosis, psychodynamics and psychotherapy, has been enumerated. These preliminaries seemed necessary to the design of this research, whereby the hypothesis will be tested.

CHAPTER II

THE EXPERIMENTAL DESIGN

This chapter presents the procedures involved in attempting to test the hypothesis that there is no relationship between the results obtained with a thematically administered Rorschach and the TAT when both are used for the study of ideational content analyzed with the help of a common scoring system. It begins with a pilot study done to determine if stories could be elicited by using the Rorschach and in what manner of administration these stories could be best brought about. This is followed by a description of the tools and the subjects utilized in this research, and finally by a description of the statistics that will be used in the analysis of this data.

1. The Pilot Study.

The pilot study which consisted of four male and four female university students was set up in an attempt to answer if stories could be elicited by using the Rorschach and in what manner of administration these stories could be best brought about. The first method consisted of simple showing the student the first Rorschach card and asking him to tell a story about the card. The second method of administration in this pilot study consisted of giving Card I to the subject

and after gaining responses through the Klopfer and Kelly¹ method of instructions the subject was asked to make up a story using the responses he had given originally. This technique was carried on for the remaining cards. The third method attempted was to administer the Rorschach in the usual fashion and then coming back to Card I and asking the subject to make up a story using the responses they had given originally to every card. This third method of administration appeared to produce the best stories. In addition it utilized the Rorschach in the usual manner and therefore retained the value of Rorschach's original contribution. This method was used for the remaining subjects in the pilot study and in the research proper.

Using this third method of administration the four university girls were given the Rorschach and ten cards of the TAT from seven to twelve days later. Both protocols were then scored according to Fine's^{2,3} system of analysis. Although the small number of subject's precluded any statistical

1 Bruno Klopfer and Douglas McGlashan Kelly, The Rorschach Method, A Manual for a Projective Method of Personality Diagnosis, Yonkers-on-Hudson, World Book, 1942, p. 32.

2 Reubin Fine, "A Scoring Scheme for the TAT and Other Verbal Projective Techniques", in the Journal of Projective Techniques, Vol. 19, No. 3, issue of September 1955, p. 306-309.

3 -----, "Manual for a Scoring Scheme for Verbal Projective Techniques (TAT, Maps, Stories and the Like)", in the Journal of Projective Techniques, Vol. 19, No. 3, issue of September 1955, p. 310-316.

analysis, a comparison of the various sub-categories obtained in both techniques showed enough significant signs of promise that the research project was continued.

Therefore, the two questions posed at the beginning of the pilot study were answered. First, stories could be elicited from the Rorschach, and secondly, a method of administering this technique was chosen which would gain in the best manner stories from the given responses and still allow the full value of the individual Rorschach to be retained.

2. Tools of the Experiment.

The thematically administered Rorschach (hereafter known as the TAR), a short form of the TAT, and the Otis Self-Administering Tests of Mental Ability, Higher Examination, Form A⁴ were used with each subject of this project. This section contains an explanation of the administration of the tests, a survey of the major methods of scoring a thematic technique, the method of scoring selected for this research and the reasons for this choice.

1. The T A R.- The TAR was obtained by first giving the entire series of Rorschach cards in accordance with the Klopfer and Kelly instructions. However, no inquiry or testing

⁴ Arthur S. Otis, Otis Self-Administering Tests of Mental Ability, Yonkers-on-Hudson, World Book, 1922.

of the limits was undertaken. Card I was then handed back to the subject and given the following instructions:

You have given me these responses (here read back the responses that the subject gave originally) when I first showed you this card. By using these responses, make up a story with a plot to it.

After recording the subject's story, the remaining cards are presented with the experimenter recalling to the subject his original responses. All of the stories given by the subject including relevant comments or questions were recorded verbatim. Only if the subject gave a purely descriptive story are the instructions repeated and the requirements of a plot to the story emphasized. Requests for help or interpretation beyond the standard instructions were met by saying, "Just say what you think. There is no right or wrong answers". Inquires about a detail in the blot were met by "You may make it anything you wish".

2. The T A T.- The following ten cards from the third Harvard Psychological Clinic revision⁵ of the TAT were given in the order listed.

<u>Card No.</u>	<u>Identifying Description</u>
1	Boy with violin.
2	Country scene, young women with books in her hand.
3BM	Boy huddled on the floor against couch.
4	A woman is clutching the shoulders of a man who is turning away.
7GF	Older woman speaking or reading to little girl who is looking away.
12F	A portrait of a young woman with weird old woman grimacing in the background.
13MF	Figure of woman lying in bed with man standing near.
15	Man with clenched hands standing among gravestones.
16	Blank card.
18GF	A woman being pushed backwards against bannister of a stairway by a second woman.

These ten cards were picked after a survey of the literature showed them to be the most frequently employed in various short form methods because of their ability to reveal the most comprehensive picture of the psychodynamics of the subjects.

⁵ Henry A. Murray, Thematic Apperception Test Manual, Cambridge, Harvard Press, 1943, p. 18-20.

Watson⁶ reviewed the literature on short form TAT sets and cites five different sets which were made up on a combined apriori and empirical basis by Eiduson and Klopfer, Holt, Levinson, Rosenzweig, and Watson. The ten TAT cards that were used in this study were agreed on by at least three of the authorities as to the usefulness of these cards.

Bellak⁷ believes that a optimum of material is obtained from about ten or twelve pictures. In his review of the TAT cards he has found to be most useful, only 12F of the selection made for this research was found to be of little value.

These ten cards were then administered in the usual interview position. The following instructions according to Murray were given:

This is a test of imagination, one form of intelligence. I am going to show you some pictures, one at a time; and your task will be to make up as dramatic a story as you can for each. Tell what has led up to the event shown in the picture, describe what is happening at the moment, what the characters are feeling and thinking; and then give the outcome. Speak your thoughts as they come to your mind. Do you understand? Since you have fifty minutes for ten pictures, you can devote about five minutes to each story. Here is the first picture.⁸

6 Robert I. Watson, The Clinical Method in Psychology, New York, Harper, 1951, p. 446-452.

7 Lawrence Edwin Abt and Leopold Bellak, Projective Psychology, Clinical Approaches to the Total Personality, New York, Knopf, 1950, p. 205-218.

8 Murray, Op. cit., p. 3.

The blank card No. 16 is accompanied by these instructions:

"See what you can see on this blank card. Imagine some picture there and describe it to me in detail." If the subject does not succeed in doing this, the examiner says, "Close your eyes and picture something". After the subject has given a full description of his imagery, the examiner says, "Now tell me a story about it".⁹

The subject's stories were recorded verbatim and the questions by the subject were handled as instructed by the Manual¹⁰.

The O t i s.- The Otis Self-Administering Tests of Mental Ability, Higher Examination, Form A, was given in order to gain a more precise measure of the mental ability of the subjects in this research. It was felt that a more accurate measure of intellectual ability than educational achievement should be known so that the results of this study could be more adequately interpreted.

The TAR and the short form TAT were given individually and from one day to twenty three days apart. These tools were used in the following sequence: the TAR and the TAT were administered using the AB-BA pattern, i.e. one girl received the TAR first and then the TAT, the next girl the TAT first and then the TAR, etc. The Otis was then given in group sessions at the completion of both tests.

⁹ Murray, Op. cit., p. 5.

¹⁰ Id., Ibid., p. 4.

3. The Scoring Technique.

With the explanation of how the two thematic techniques were given one is confronted with the problem of selecting an appropriate scoring scheme for this research problem. This problem was made difficult since Eron¹¹ states that there are about as many ways of analyzing TAT stories as there are clinical psychologists, but very few of these methods have been demonstrated to be reliable or reproducible by others. In the following paragraphs the major methods for analysis are reviewed pointing out the areas and variables which each system selects as important. Some of the advantages and disadvantages of each method are discussed.

Murray¹² identified six areas for analysis of the content: the hero of the story; the trend of overt behavior classified into needs, inner states and emotions; the forces encountered by the hero, the press; the outcomes of the stories; the themata, which consist of the interaction of the needs and press with an outcome; and the interests and sentiments of the story teller.

The important emphasis that this method made was upon apriori categories which were not a function of any

11 Leonard D. Eron, "Some Problems in the Research Application of the TAT", in the Journal of Projective Techniques, Vol. 19, No. 2, issue of June 1955, p. 125.

12 Henry A. Murray, Thematic Apperception Test Manual, Cambridge, Harvard Press, 1943, 20 p.

particular problem toward which the research was directed, but rather general, a net in which the pieces of the protocol may be caught, organized, and thereafter treated in any fashion suitable to the interest of the examiner. This general type of category had the advantage of allowing comparison with data obtained from other samples without any additional scores having to be made.

This approach of Murray's has been criticized on the grounds that it depends upon a preconceived personality theory of needs. The critic's suggest that the variables be a function of the particular topic under investigation by the phantasy test and that the variables should have direct relevance to the problem¹³. This results in a post hoc determination of the relevant variables and a criticism of the Frenkel-Brunswick system of scoring¹⁴ which necessitates that new variables have to be developed for each new piece of research. Moreover the results of a specially oriented research, where the data is cast into specially created categories, have no immediate usefulness for other research workers in related areas. The second criticism of the post hoc approach is a methodological one. In relating variables to a particular problem

13 Else Frenkel-Brunswick, "Dynamic and Cognitive Categorization of Qualitative Material: I. General Problems and the Thematic Apperception Test", in the Journal of Psychology, Vol. 25, Second Half, issue of April 1948, p. 253-260.

14 Id., Ibid.

the variables are arrived at after the collection of the data. In examining studies involving the application of statistics to projective studies, Lewis and Burke¹⁵ state "whenever possible, categories for frequency data (...) should be set up independently of the data under study".

While Murray's method of content analysis approaches the TAT protocols on a molecular level, phrase by phrase, the emphasis by Frenkel-Brunswick¹⁶ is on a more molar level dealing with major themes. The method of analysis set forth by Henry¹⁷ typifies this group. Although he presents some formal aspects of the stories as well as content areas, we will deal only with the content areas. These content areas include general emotional tone of the words and actions described, attributes of the characters with emphasis on the central figure, attributes and characteristics of the environment of the characters, empathy with the character, interpersonal relations, the action core or thema of the story with attention on both repeated themas, on single themas, and on sequence of themas, dynamic structure, and finally the negative content, what the subject fails to say, or what

15 Don Lewis and C. J. Burke, "The Use and Misuse of the Chi-Square Test", in the Psychological Bulletin, Vol. 46, No. 6, issue of November 1949, p. 464.

16 Frenkel-Brunswick, Op. cit., p. 253-260.

17 William E. Henry, The Analysis of Fantasy, The Thematic Apperception Technique in the Study of Personality, New York, Wiley, 1956, p. 70-101.

he might have been expected to say considering the usual responses made to a particular picture.

Tomkins¹⁸ sets forth a scheme for scoring the TAT which contains four main areas: vectors, levels, conditions and qualifiers. The vectors deal with the direction of behavior, strivings, and wishes and the relationship of the behavior to objects. There are seventeen different levels that are used to describe the plane of psychological functioning involved in the story while the conditions are defined by Tomkins¹⁹ as "any psychological, social, or physical state which is not itself behavior, striving, or wish". These conditions are subdivided into negative and positive valences. Negative valences include conditions of lack, loss, excess, etc., while positive valences include abundance, security, moderation and so forth.

To the vectors, levels and conditions are added qualifiers. These qualifiers modify the other variables by indicating specific aspects of time, certainty, intensity, negation, subsidiation or causality.

Several scoring examples are given and it appears both cumbersome and time consuming. Moreover the writer himself seems to have little use for the scoring scheme for in the

18 Silvan S. Tomkins, The Thematic Apperception Test, The Theory and Technique of Interpretation, New York, Grune, 1947, ix-297 p.

19 Id., Ibid., p. 31.

250 pages which follow the presentation of the scheme only the levels of the scheme are treated for interpretation. Interpretation is based on the division of the content of the protocol into four regions: the family, love and sex, social relationships, finally work and vocational setting. The scoring scheme approaches the TAT on the unit-by-unit basis but the division and handling by region reverts to a more global major thema approach.

Stein²⁰ starts with the Murray need-press analysis as his point of orientation. Stein differentiates seven general areas: the hero, his environmental stimuli and behavior which are classified according to the press and need categories of Murray, cathexes which are the objects, activities, people, ideas, which attract or repel the hero, inner states experienced by the hero such as joy, dejection, etc., the manner of expressing behavior is comparable with the levels designated by Tomkins, and finally outcomes which are simply either happy, indefinite, or unhappy. In addition to these factors, which deal with the content, Stein lists additional formal elements.

Like Tomkins, Stein does not base his interpretations on a systematic inspection of his scored protocols. In fact

20 Morris I. Stein, The Thematic Apperception Test, An Introductory Manual for its Clinical Use with Adults, Cambridge, Addison-Wesley, 1955, xviii-365 p.

he does not, in the usual sense, score his protocols. He uses his variables as a frame of reference for interpretations.

The system of analysis utilized in this research is the one developed by Fine^{21,22} which consists of Feelings, Outcomes, and Interpersonal Relationships. With certain exceptions only manifest content is scored, and no attention is paid to whether the feeling is expressed by the hero or some other character. The Feeling categories have been selected on an empirical basis being the ones most frequently encountered in the experience of the author. Interpersonal Relations are categorized under the three main areas of moving towards, moving against, and moving away from, with a number of sub-categories for each of these areas. The Outcomes are either favorable, unfavorable or undeterminate. Although a copy of this scoring system can be found in Appendix 1, it is felt that some further description of how this method was applied to the two techniques used in this research was needed. Instructions and explanations given for scoring are as follows:

1. Columns appearing on the scoring sheet in the Feeling and Outcome categories are numbered to correspond to either the TAT cards or TAR cards.

21 Fine, Op. cit., p. 306-309.

22 -----, Op. cit., p. 310-316.

2. Score only what is explicitly stated except for the sub-categories hostility, frustration and some pathological indicators. No interpretation is permitted.

3. A basic scoring principle is that the repetition of any Feeling or Interpersonal Relationship within one story is disregarded, e.g. She was angry, very angry. The sub-category anger is checked once; the repetition is disregarded.

4. All the terms employed in this scoring system are defined as in common usage. In all cases dictionary definitions are applicable.

5. In the Feeling and Outcome variables the presence of a feeling and the type of outcome is simply checked. Under Interpersonal Relationships the number of the story is entered in the appropriate box, e.g. If mother-child hostility occurs in Card 1, the number "1" is entered in the appropriate box. It is of course possible to have more than one number in any given space.

6. The total raw score for each sub-category was obtained by counting the number of times a particular sub-category was used by the subject in the ten cards.

A shortcoming of this scoring scheme is that criteria have not been developed by Fine for the scoring of the intensity of the responses in the particular sub-variables. The author felt that an intensity score should be in great part

based on the uniqueness of the response. Rather than simply using what were considered more superficial indicators, such as the modifications of various expressions by adjectives and adverbs, it was felt that the popularity of responses should play a central role in the estimation of intensity. These were not available for the present study and for that reason an attempt at scoring intensity was not made.

Even with this limitation the author decided to use this scoring system in this research because: except for the outcome categories no hero had to be selected, this was felt to be one of the difficulties that would be encountered in the TAR since the stimuli in many of the cards would not elicit an individual which could be identified as the hero; this scoring system was devised for all types of verbal projective techniques, not just the TAT; a number of studies which will be reviewed presently suggested the value of this system of scoring; and finally, it appeared to be easily learned.

Although this system of analyzing verbal projective techniques was conceived comparatively recently, one finds a number of studies using this system. Fine²³ in his own study reported that inter-rater agreement using this system was high when compared to those quoted in Tomkins²⁴. In his

23 Fine, Op. cit., p. 306-309.

24 Silvan S. Tomkins, The Thematic Apperception Test, The Theory and Technique of Interpretation, New York, 1947, p. 4.

study of asthmatic children the conclusions from the TAT stories of the patients as compared to their sibling controls were that the asthmatic presented less crying and more sadness, they used escape solutions less, they had stronger oral drives; they indulged in more wishful thinking for fame and fortune, etc.

Using this scoring system with the MAPS test in a research dealing with hostility, Walker²⁵ found that ratings of hostility based on the test's content was related at a very significant level with therapists rating of hostility, and the hostility ratings based on content analysis of the Rorschach and MAPS tests were very significantly related to each other.

Lessa and Spiegelman²⁶ attempted to ascertain to what extent objective quantitative analysis of thematic test productions can validly reveal the personality structure and other characteristics of people of the Ulithi Atoll. Using Fine's system of scoring with fourteen TAT-like pictures, there appeared close agreement between the psychological and

25 Robert G. Walker, "A Comparison of Clinical Manifestations of Hostility with Rorschach and MAPS Test Performances", in the Journal of Projective Techniques, Vol. 15, No. 4, issue of December 1951, p. 444-460.

26 William A. Lessa and Marvin Spiegelman, "Ulithian Personality as Seen Through Ethnological Materials and Thematic Test Analysis", in Culture and Society, Vol. 2, No. 5, 1948-1952, p. 243-301.

ethnographic interpretation using a "blind analysis" technique. This quantitative approach showed ability to pick up nuances, as well as gross differences among groups and categories and included fairly accurate statements about the activities and personality characteristics of the people.

Davison²⁷ analyzed the TAT records of sixty hospitalized veterans using this system. The six groups containing ten patients were made up of anxiety reactives, conversion reactives, depressive reactives, catatonic schizophrenics, hebephrenic schizophrenics, and paranoid schizophrenics. A number of significant discriminations were obtained and the author concludes by noting that this system of scoring TAT records provides a reliable technique that uncovers some highly interesting differences between groups and suggests that further research be done with this system.

27 Arthur H. Davison, "A Comparison of the Fantasy Productions on the Thematic Apperception Test of Sixty Hospitalized Psychoneurotic and Psychotic Patients", in the Journal of Projective Techniques, Vol. 17, No. 1, issue of March 1953, p. 20-33.

4. Population Tested.

To test the hypothesis of this research a group of forty volunteer university females were used in this study. The characteristics of the sample which was gathered from facilities located in Ottawa, Ontario, Canada are presented in Table I. For our study any schooling undertaken after the twelfth grade would be considered as university level. This sample also included three students who were in the last months of the twelfth grade. All the subjects were simply told during a group meeting that the experimenter was conducting research dealing with imagination. No other information was given as to the nature of the research.

An inspection of Table I reveals that nineteen girls from Notre Dame College ranged in age from 17 years 5 months to 22 years 9 months with a mean of 19 years 9 months. The mean years of education was 15.4 and ran from the first year of college to the fourth. It included an IQ range from 104 to 122 with a mean of 115.3. The nine Notre Dame Convent girls ranged from age 16 years 2 months to 18 years 3 months with a mean of 17 years 2 months. The mean years of education was 12.6 with a range of from the twelfth grade to the first year of university study. The IQ range of 91 to 127 was obtained with a mean of 105. The twelve Normal School girls ranged in age from 17 years 1 month to 19 years with a mean

Table I.- Characteristics of the Sample Used.

Groups	N	Age ¹		Education ²		IQ	
		Range	Mean	Range	Mean	Range	Mean
N.D. College	19	17-5 to 22-9	19-9	13 to 17	15-4	104 to 122	115.3
N.D. Convent	9	16-2 to 18-3	17-2	12 to 13	12-6	91 to 127	105.
Normal School	12	17-1 to 19-0	18-1	13	13	87 to 115	98.3
All Three	40	16-2 to 22-9	18-8	12 to 17	13-8	87 to 127	106.8

1 In years and months.

2 In years of schooling.

of 18 years 8 months. These Normal School girls were to be considered in the first year of university studies and their IQ's were found to range from 87 to 115 with a mean of 98.3.

5. Statistics for Analysis of Data.

Since the aim of this study is to determine that there is no relationship between the results obtained with the TAR and the TAT when both are used for the study of ideational content analyzed with the help of a common scoring system, a correlational approach was indicated. On the condition that linearity and homoscedasticity were present, the Pearson product-moment coefficient of correlation was to be used in the analysis of the data. The computation service of the International Business Machine was used to determine ΣX , ΣX^2 , ΣY , ΣY^2 and ΣXY in addition to the data necessary for the tests of linearity for the various sub-categories in the Feeling and Outcome sections of the scoring system. All other correlations were done manually.

The raw score formula for coefficient correlation to be used was the following:

$$r_{xy} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

The significance of an obtained r was tested by the table of values²⁸. For the sample of forty girls an r must equal .31 or greater to be usable (i.e. to be significant at least at the .05 level) and an r must equal .40 or greater to be usable (i.e. to be significant at the .01 level). The hypothesis will be rejected if the sub-categories in the two techniques are found to be correlated.

The reliability of the measuring instrument (scoring scheme) is a function of the ability of different scorers to learn the system and use it in a similar fashion. The greater the agreement between scorers on the same material, the more likely is it that the measuring instrument provides the basis for this agreement. If high agreement between scorers is found, then the experimenter could score the remaining protocols independently.

The reliability of the scoring system used in this research was tested by having another judge score a random selection of ten TAR and ten TAT protocols. Since reliability is dependent in part on acquaintance with the scoring scheme the experimenter scored these randomly selected protocols first. It could then be considered that both the experimenter and outside scorer were equally familiar with the scoring system.

28 E. F. Lindquist, Statistical Analysis in Educational Research, Boston, Houghton, 1940, p. 212.

Interscorer reliability was determined through the r formula stated on the previous page. The significance of this obtained r was tested by the table of values and it was found that a r must be .56 or greater to be significant.

The results of the interscorer reliability for the various sub-categories of the scoring scheme ranged from +.45 to +.99 with a mean correlation coefficient of +.76. Table II contains a listing of the sub-categories, correlations, and levels of significance found on the twenty TAR and TAT protocols that were randomly selected. An examination of this table reveals that the r obtained between scorers on six sub-categories were not significant. Three of these low interscorer agreements, frustration, verbal and physical hostility, may be explained by noting that in this scoring scheme these three sub-categories are the only ones where interpretation by the scorer is permitted. Even with these low interscorer correlations the reliability of the scoring scheme found in this research compares favorably with the interscorer agreement reported by Fine²⁹ using his scoring system and those reported by Tomkins³⁰ for various scoring systems of the TAT. Therefore, the results suggested that the experimenter could score the remaining protocols independently.

29 Fine, Op. cit., p. 307.

30 Tomkins, Op. cit., p. 4.

Table II.- Interscorer Reliability Found on the Sub-Categories of Fine's Scoring System (N = 20).

Sub-Categories	<u>r</u>	<u>P</u>
1. Feelings:		
Affection, Verbal	.88	>.01 ^a
Anger	.73	>.01
Anxiety	.64	>.01
Depression	.59	>.01
Drink	.98	>.01
Escape	.70	>.01
Excitement	.53	NS
Frustration	.45	NS
Guilt	.48	NS
Hostility, Verbal	.48	NS
Hostility, Physical	.52	NS
Hostility, Death	.92	>.01
Inferiority	.64	>.01
Loneliness	.48	NS
Pleasure	.61	>.01
Sexuality	.94	>.01
Suicide	.99	>.01
Superiority	.67	>.01
2. Outcome:		
Favorable	.96	>.01
Unfavorable	.82	>.01
Indeterminate	.92	>.01
3. Interpersonal Relationships:		
a) Moving Towards		
Mother-Child, Affection, V.	.69	>.01
Mother-Child, Dominance	.68	>.01
Father-Child, Dominance	.68	>.01
Child-Father, Submission	.76	>.01
b) Moving Against		
Child-Mother, Verbal	.78	>.01
Woman-Man, Verbal	.62	>.01
Man-Animal, Verbal	.69	>.01
Animal-Man, Physical	.72	>.01
Animal-Animal, Physical	.76	>.01
Animal-Man, Death	.69	>.01
Man-Animal, Death	.72	>.01
Animal-Animal, Death	.61	>.01
c) Moving Away From		
Man-Woman, Separation	.59	>.01
Woman-Man, Separation	.61	>.01

a Correlation must be .56 to be significant at the .01 level of Confidence.

This chapter has outlined by what manner and means the hypothesis of this research was to be tested. A description of the pilot study was included to explain how this method of administering the Rorschach was chosen. This was followed by a description of the tools used in this study, a review of various means of scoring a thematic technique and the reasons for the selection of the one used in this research. A description of the statistics to be used in the analysis of the data obtained and finally the results of interscorer reliability with the scoring technique used in this study was reported.

CHAPTER III

CLASSIFICATION OF THE PROJECTIONS

The forty gracious students who were willing to try the TAR-TAT routine produced interesting psychological material that will be distributed into Fine's three major categories, the Feeling, the Outcome, the Interpersonal Relationships categories.

1. The Feeling Category.

The first of the three main scoring categories, that of Feelings, is broken down into twenty-six sub-categories. Three of these sub-categories are further broken down in such a way that there are thirty-three possible sub-categories under this major heading. But in scoring the TAR and TAT protocols it was found that only twenty-nine of these sub-categories were used by the subjects of this research, thus eliminating the following: Tabooed Activity, Bizarre Verbalization, Rejection of a Card, and Others. The Pearson product-moment coefficient of correlation between the TAR and TAT, with their levels of significance, for the twenty-nine sub-categories are presented in Table III. All of the sub-categories meet the test for linearity, whereas the test of homoscedasticity was assumed.

Table III.- Correlation Coefficients with their Levels of Significance between the TAR and TAT on Twenty-Nine Feeling Sub-categories of Fine's Scoring System (N = 40).

Sub-categories	<u>r</u>	P
Affection, Verbal	.40	.01 ^a
Affection, Physical	.14	
Anger	.42	>.01
Anxiety	.14	
Compulsion	.44	>.01
Conflict	.09	
Crime	.26	
Depression	.10	
Drink	.17	
Effort	.32	>.05 ^b
Escape	.00	
Excitement	.39	>.05
Frustration	.53	>.01
Guilt	.36	>.05
Verbal, Hostility	.39	>.05
Physical, Hostility	.10	
Death, Hostility	.35	>.05
Inferiority	.20	
Loneliness	.26	
Orality	.28	
Pain	.24	
Homosexuality	1.00	>.01
Pleasure	.35	>.05
Possessiveness	.00	
Sexuality	.81	>.01
Special States	.02	
Suicide	.30	
Superiority	.10	
Wishful Thinking	.14	

a Correlation must be .40 or better to be Significant at the .01 Level of Confidence.

b Correlation must be .31 or better to be Significant at the .05 Level of Confidence.

An examination of Table III reveals that twelve correlations were found to be significant beyond the .05 level of confidence; of these six were found to be significant at the .01 level of confidence or beyond, the Verbal Affection, Anger, Compulsion, Frustration, Homosexuality and Sexuality. The other six measures were for Effort, Excitement, Guilt, Verbal Hostility, Death Hostility and Pleasure. In effect this means that twelve of the twenty-nine sub-categories lead us to reject our hypothesis, and the other seventeen lead us to accept it.

2. The Outcome Category.

The scoring category of Outcome is broken down into three sub-categories: Favorable, Unfavorable, and Indeterminate. Table IV presents the results obtained in this study under these headings. The correlations between the measure of Favorable and Unfavorable Outcomes were found to be significant beyond the .05 level of confidence, while the Indeterminate Outcome reached the .01 level of confidence. All of the sub-categories meet the test for linearity, whereas again homoscedasticity was assumed.

In Fine's system of scoring this is the only category that must be scored from the point of view of the hero. Though many of the TAR stories did not reveal a hero, the outcomes

Table IV.- Correlation Coefficients with their Levels of Significance between the TAR and TAT on the Outcome Sub-categories of Fine's Scoring System (N = 40).

Sub-categories	<u>r</u>	P
Favorable	.33	>.05 ^a
Unfavorable	.33	>.05
Indeterminate	.40	.01 ^b

a Correlations must be .31 or better to be Significant at the .05 Level of Confidence.

b Correlations must be .40 or better to be Significant at the .01 Level of Confidence.

were determined by the endings given to the stories, even when they may have involved animals or nature. Again the results lead us to reject the null hypothesis.

3. Interpersonal Relationships Category.

This scoring category is made up of sixteen varieties of interpersonal combinations such as Mother-Child, Child-Mother, etc. In addition to these combinations the author had to make six new varieties of relationships found in the evaluation of the TAR which were not included in the original scoring scheme. These relationships were: Nature-Animal, Nature-Man, Man-Animal, Animal-Animal, Animal-Man, and Woman-Animal. No other changes in the scoring scheme had to be made.

In addition to the interpersonal combinations, Fine's scoring scheme is also made up of three main types of interaction which are: Moving Towards, Moving Against and Moving Away From. There are further subdivisions under these three types of interaction. A scanning of Appendix 1 may help the reader more fully understand the use made of the Interpersonal Relationships Category of this scoring technique.

The subjects in this study were found to have used 106 combinations of Interpersonal Relationships when the TAR and TAT protocols were scored. The correlations and their significance are reported in Table V. All of these meet the test of linearity, whereas homoscedasticity was assumed. Table V reveals that only six out of the 106 correlations between the measures of the interpersonal combinations were significant beyond the prescribed level of confidence. Two of the correlations between the measures of Man-Woman Verbal Affection, and Authority-Subject Death were significant beyond the .05 level. The correlations between the measures of Man-Woman Separation, Woman-Man Separation, Friend-Friend Physical, and Mother-Father Physical, were significant beyond the .01 level of confidence. These six correlations between the measures of Interpersonal Relationships are the only ones that lead to a reversal of the null hypothesis.

The design of this study was that any sub-categories which were found to show a high enough correlation to meet the prescribed level of confidence would lead to the rejection of the null hypothesis. It was noted that in twelve Feeling sub-categories, in three Outcome sub-categories, and in six Interpersonal Relationships sub-categories the null hypothesis was rejected, i.e. it cannot be stated that there is no

Table V.- Correlation Coefficients with their Levels of Significance between the TAR and TAT on the Interpersonal Relationship Sub-categories of Fine's Scoring System, (N = 40.)

Sub-categories	<u>r</u>	Sub-categories	<u>r</u>
Mother-Child		Child-Father	
1. Moving Towards		1. Moving Towards	
Verbal Affection	.14	Verbal Affection	-.02
Acceptance	-.17	Acceptance	-.03
Dominance	.26	Submission	-.09
2. Moving Against		2. Moving Against	
Verbal	-.02	Verbal	.02
3. Moving Away From		3. Moving Away From	
Separation	-.24	Separation	-.22
Rejection	.17		
Child-Mother		Mother-Father	
1. Moving Towards		1. Moving Towards	
Verbal Affection	-.02	Verbal Affection	-.03
Acceptance	-.17	Acceptance	-.22
Submission	-.14	Dominance	-.02
2. Moving Against		2. Moving Against	
Verbal	.20	Verbal	-.03
3. Moving Away From		Physical	>.42 ^a
Separation	-.17	3. Moving Away From	
Rejection	.00	Separation	.00
		Rejection	.03
Father-Child		Father-Mother	
1. Moving Towards		1. Moving Towards	
Verbal Affection	.22	Verbal Affection	-.02
Acceptance	.26	Acceptance	.03
Dominance	.20	2. Moving Against	
2. Moving Against		Verbal	-.10
Verbal	-.02	Physical	-.03
3. Moving Away From		Death	.00
Separation	-.17	3. Moving Away From	
Rejection	.00	Separation	.01
		Rejection	.00

a Correlation must be .40 or better to be Significant at the .01 Level of Confidence.

Table V, cont'd.- r and P between TAR and TAT.

Sub-categories	r	Sub-categories	r
Sibling-Sibling		Woman-Woman	
1. Moving Towards		1. Moving Towards	
Acceptance	-.03	Verbal Affection	.00
2. Moving Against		2. Moving Against	
Verbal	-.20	Verbal	.20
Physical	-.02	Physical	-.01
3. Moving Away From		Death	-.02
Separation	-.02	3. Moving Away From	
Rejection	-.02	Separation	-.02
Man-Man		Woman-Man	
1. Moving Towards		1. Moving Towards	
Acceptance	-.03	Verbal Affection	.28
2. Moving Against		Acceptance	-.14
Verbal	.02	Dominance	.17
Physical	-.14	2. Moving Against	
Death	.10	Verbal	.00
3. Moving Away From		3. Moving Away From	
Separation	-.03	Separation	>.54
Rejection	-.02	Rejection	-.22
Man-Woman		Authority-Subject	
1. Moving Towards		1. Moving Towards	
Verbal Affection	>.33 ^b	Dominance	-.17
Acceptance	-.14	2. Moving Against	
Dominance	.22	Verbal	-.02
Submission	-.02	Physical	-.02
2. Moving Against		Death	>.36
Verbal	-.02		
Physical	.09		
Death	-.09		
3. Moving Away From			
Separation	>.63		
Rejection	-.14		

^b Correlation must be .31 or better to be Significant at the .05 Level of Confidence.

Table V, cont'd.- r and P between TAR and TAT.

Sub-categories	r	Sub-categories	r
Subject-Authority		Man-Animal	
1. Moving Towards Submission	-.10	1. Moving Towards Verbal Affection	.00
2. Moving Against Verbal	-.02	Acceptance	.00
Physical	-.02	Dominance	.00
Death	.00	2. Moving Against Verbal	.00
Friend-Friend		Physical	.00
1. Moving Towards Acceptance	.09	Death	.00
2. Moving Against Verbal	-.02	3. Moving Away From Rejection	.00
Physical	>.42	Animal-Man	
Death	.00	1. Moving Towards Acceptance	.00
3. Moving Away From Separation	.17	Dominance	.00
Stranger-Stranger		Submission	.00
2. Moving Against Verbal	.00	2. Moving Against Physical	.00
Physical	.00	Death	.00
Death	.00	Animal-Animal	
3. Moving Away From Separation	.00	1. Moving Towards Physical Affection	.00
Nature-Animal		Acceptance	.00
2. Moving Against Death	.00	2. Moving Against Physical	.00
Nature-Man		Death	.00
2. Moving Against Physical	.00	3. Moving Away From Separation	.00
Death	.00	Woman-Animal	
		3. Moving Away From Separation	.00

relationship between the results obtained with the TAR and TAT when both are used for the study of ideational content analyzed with the help of a common scoring system. In the other 117 sub-categories where the correlations were not found to be significant the null hypothesis seems to be maintained.

And now, what is the meaning of all this? The next chapter will attempt to answer that question.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter will present 1) an analysis of the significance of the correlations found in this research, 2) a study of the scatter patterns found on the individual sub-categories that reached the prescribed level of significance, and 3) the results found in the individual cards of the Rorschach and TAT when scored according to the scheme utilized in this study; finally 4) the chapter concludes with some implications and questions raised by this research as to the theory underlying the Rorschach and projective techniques in general.

1. Significance of the Correlations.

It will be recalled that for the twenty-nine Feeling sub-categories that were used in the scoring of the TAR and TAT protocols, six sub-category correlations were significant at, or beyond, the .01 level of confidence, while six were significant beyond the .05 level of confidence. For the three sub-categories in the Outcome category two sub-category correlations were found to be significant beyond the .05 level of confidence, while one reached the .01 level of confidence. For the one hundred and six Interpersonal

Relationships sub-categories that were used in scoring these protocols only four sub-category correlations reached beyond the .01 level of confidence, while two were significant beyond the .05 level of confidence.

These results can be studied according to Barr's¹ suggestion that the value of a correlation as a measure of correspondence can be considered from two points of view; correlations are computed first of all in order to determine whether there is any relationship resulting from something besides chance between the two variables, and secondly in order to determine the degree of this relationship.

In the previous pages the results of this research were presented in keeping with the first of the two views. Now the value of these correlations appears to be the more important aspect, since we are attempting to devise a technique, the TAR, which would replace another technique, the TAT. Therefore we must demonstrate what part of the variance in one test is associated with, or dependent upon, the variance of the second test, and what part is determined by the variance of factors not in this second test.

This analysis can be most appropriately accomplished in terms of the coefficient of determination. The coefficient

¹ A. S. Barr, "The Coefficient of Correlation", in the Journal of Educational Research, Vol. 23, issue of January 1931, p. 55-60.

of determination is r^2 ; and when it is multiplied by 100, it gives us the percentage of variance in one measurement which is associated with the variance in the other measurement. Table VI presents the squares of the coefficients that were found significant in this study. For one measurement to replace another it must be shown to measure the same thing as well as, or better, than the first. But the coefficients of determination as presented in Table VI suggest that even on the sub-categories which attained the prescribed level of confidence, the degree of association found between the two tests is still slight. Therefore little use can be made of the TAR in attempting to discover the content aspects of the personality when the TAT is used as the outside criterion.

2. Study of the Scatter Patterns.

A further analysis of the results was undertaken by plotting on a scatter diagram the distribution of scores for each sub-category that reached the prescribed level of confidence. We can then critically inspect these diagrams, and from them draw some of the more significant conclusions of this research.

Table VI.- Coefficient of Determination on the 21 Sub-Categories Found to Reach the Prescribed Level of Significance.

Sub-categories	Coefficient of Determination
Homosexuality	1.00
Sexuality	.65
Man-Woman, Moving Away From, Separation	.40
Woman-Man, Moving Away From, Separation	.29
Frustration	.28
Compulsion	.19
Mother-Father, Moving Against, Physical	.18
Friend-Friend, Moving Against, Physical	.18
Anger	.18
Verbal Affection	.16
Indeterminate Outcome	.16
Excitement	.15
Verbal Hostility	.15
Authority-Subject, Moving Against, Death	.13
Guilt	.13
Death Hostility	.12
Pleasure	.12
Favorable Outcome	.11
Unfavorable Outcome	.11
Man-Woman, Moving Towards, Verbal Affection	.11
Effort	.10

Figure 1 presents the scatter diagrams obtained on the Verbal Affection, Anger, and Compulsion sub-categories. The Verbal Affection pattern suggests that the TAT elicits this response more often than the TAR. This is evidenced by the finding that 39 such Feeling responses appear on the TAT while not being reported once on the TAR. In contrast only 4 responses of Verbal Affection are found on the TAR with none appearing on the TAT. Keeping in mind that Verbal Affections would be brought out in interpersonal relations, these results are consistent with the earlier results which suggested that Interpersonal Relationships are not revealed adequately by the TAR.

The scatter on the sub-category Anger reveals that the TAR is more revealing of this Feeling when the number of Anger responses attained on one test is compared to the lack of Anger responses on the other test, and vice versa. Since the lack of interpersonal relationships has already been noted on the TAR the question arises as to what these responses of anger attributed to animals and nature may mean to the subjects.

The Compulsion scatter pattern as revealed in Figure 1 shows that thirty-seven subjects did not have such an attribute that could be scored on either technique. The lack of responses in this sub-category throws doubt on the meaning of the correlation obtained in this study.

VERBAL AFFECTION

	4				1	1	1	
	3			1				
TAR	2	1				1		
	1	2	2	3	2	4	1	
	0	4	4	5	5	1		1
	0	1	2	3	4	5	6	
								TAT

ANGER

	3	1	1	1	2
TAR	2	4	2		2
	1	1	6	1	
	0	2	5	2	
	0	1	2	3	
					TAT

COMPULSION

	2		1
TAR	1		
	0	3	7
		1	1
	0	1	2
			TAT

Figure 1. Scatter Patterns Found on the Verbal Affection, Anger and Compulsion Sub-categories.

Figure 2 brings us a visual picture of the distributions obtained on the Effort, Excitement and Frustration sub-categories. The sub-category Effort deals with themes in which individuals are working hard and persistently. The TAR reveals this type of response somewhat more readily as evidenced by the fact that eleven such themes are expressed on this technique while none appear on the TAT, as against only seven appearances of such a response on the TAT, with none on the TAR.

The Excitement sub-category deals with individuals in the stories getting excited, screaming, hollering, etc. Although 23 subjects failed to reveal any such responses, the diagram in Figure 2 suggests that the TAR elicits this response more readily than the TAT. Only 2 Excitement responses are found on the TAT with none appearing on the TAR, while 16 are found on the TAR with none appearing on the TAT.

Frustration also appears to be evoked more readily by the TAR than by the TAT according to the scatter shown in Figure 2. Although 26 subjects gave no such response in this sub-category, 12 themes of Frustration were reported on the TAR records with none appearing on the TAT, as against 4 on the TAT with none on the TAR. This sub-category, in addition to the results found in other sub-categories, gives some hint that the TAR may have the ability to highlight some types of Feelings better than the TAT.

EFFORT

<u>TAR</u>	2	1	3	1
	1	9	4	4
	0	1	5	1
		0	1	2
			3	
				<u>TAT</u>

EXCITEMENT

<u>TAR</u>	3	2		
	2	2	2	2
	1	6	1	
	0	2	3	2
		0	1	2
				<u>TAT</u>

FRUSTRATION

<u>TAR</u>	4	1						1
	3							
	2	2	1					
	1	4	2					
	0	2	5	4				
		0	1	2	3	4	5	6
								<u>TAT</u>

Figure 2. Scatter Patterns Found on the Effort, Excitement and Frustration Sub-categories.

Figure 3 brings us the results of the scatter patterns obtained on two sub-categories of the main category of Feeling; these are Guilt and Verbal Hostility. Although 20 subjects gave no evidence of Guilt responses on either technique the results gained from the remaining subjects suggests that the TAT is a more fruitful technique than the TAR in obtaining such responses. Verbal Hostility again was found to appear more frequently in the themes given on the TAT cards than on the TAR. Twenty-six such responses occurred on the TAT with none appearing on the TAR, as against only five appearances of such responses on the TAR with none on the TAT.

Figure 4 brings us the scatter patterns of the Death Hostility and Homosexuality sub-categories. Death Hostility appears to be equally well brought out on both techniques with some suggestion that the TAR may produce this response somewhat more readily than the TAT. The perfect correlation found between the TAR and TAT on the Homosexuality sub-category can be explained by noting that only one subject gave such a response on both tests. Therefore, this perfect correlation should be viewed in the light that 39 individuals had no such responses.

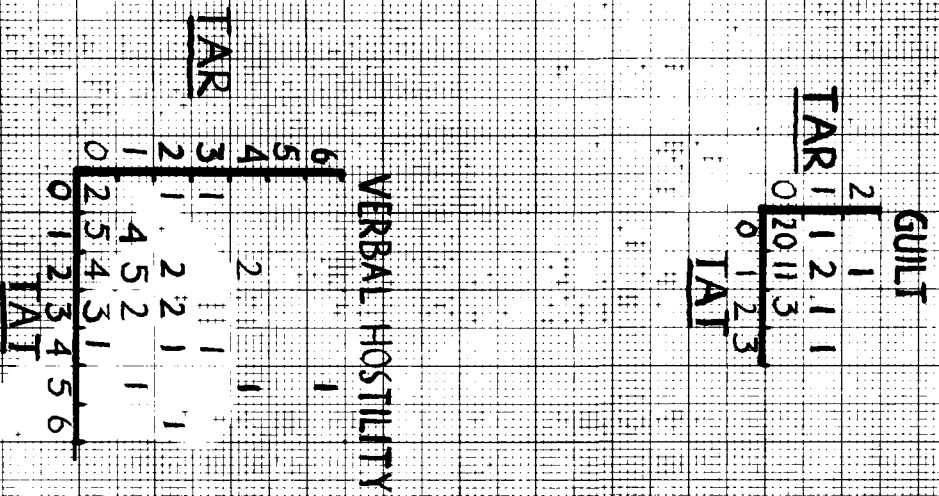


Figure 3. Scatter Patterns Found on the Guilt and Verbal Hostility Sub-categories.

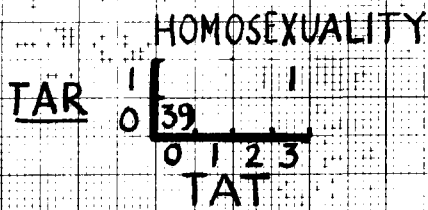
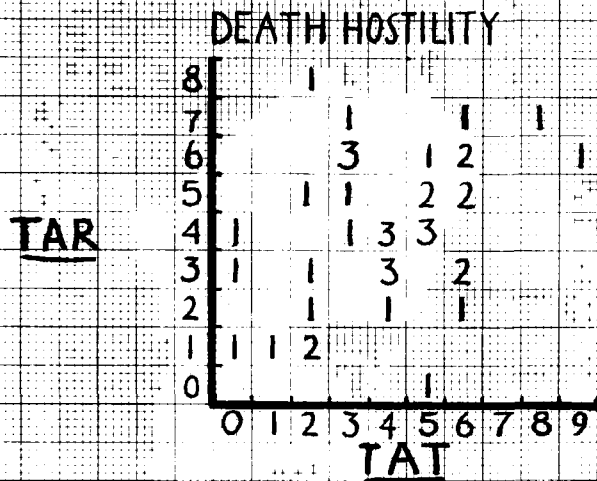


Figure 4. Scatter Patterns Found on the Death Hostility and Homosexuality Sub-categories.

The Pleasure and Sexuality sub-categories are presented in Figure 5. Both techniques appear to bring out Pleasure themes equally well according to the pattern found with the subjects of this study. The high correlation found on the Sexuality sub-category should be considered in light of the fact that 33 subjects gave no such response.

A presentation of the scatter diagram found in the Favorable sub-category of the Outcome category is found in Figure 6. An inspection of the distribution found here suggests that the TAR stimuli produces more favorable story outcomes than the TAT. The Unfavorable and Indeterminate Outcome sub-categories are found in Figure 7. The Unfavorable Outcomes are more predominant in the TAT than the TAR, while in the Indeterminate sub-category the TAR produces more such endings than the TAT.

Figure 8 presents the results of three sub-categories found significant in the Interpersonal Relationships Category of Fine's scoring system. The Mother-Father, Moving Against, Physical sub-category scatter reveals only a small number of responses which could be scored for this attribute. The Man-Woman, Moving Towards, Verbal Affection sub-category scatter supports once more the statement that interpersonal relationships are not well revealed on the TAR. There are 27 themes of this type found on the TAT with none appearing

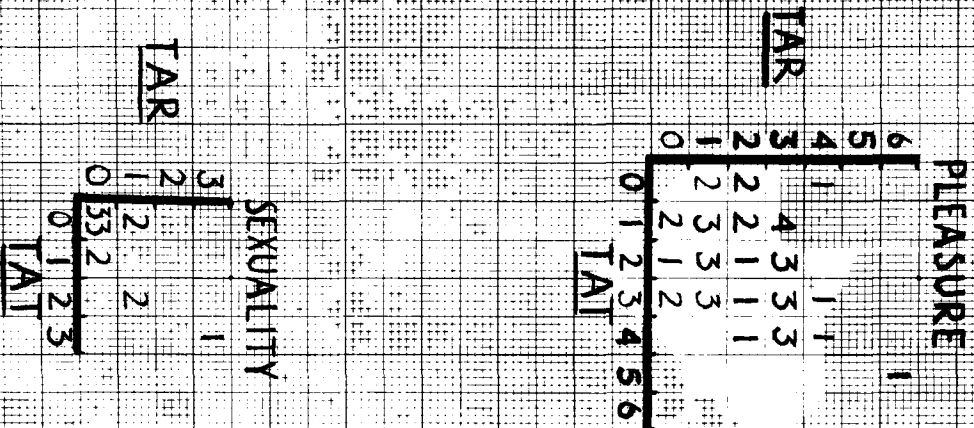


Figure 5. Scatter Patterns Found on the Pleasure and Sexuality Sub-categories.

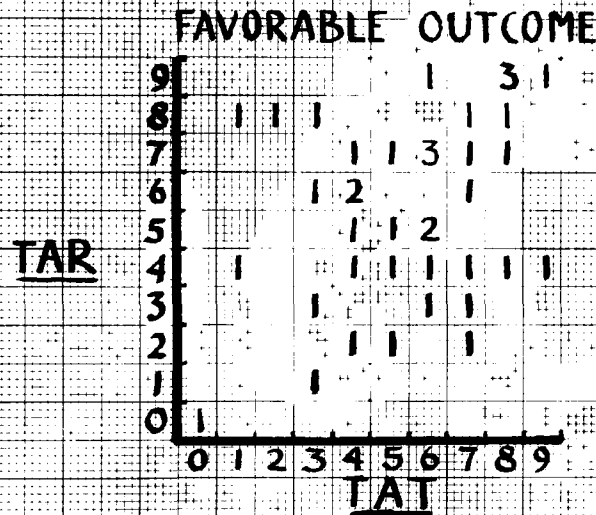


Figure 6. Scatter Pattern Found on the Favorable Outcome Sub-category.

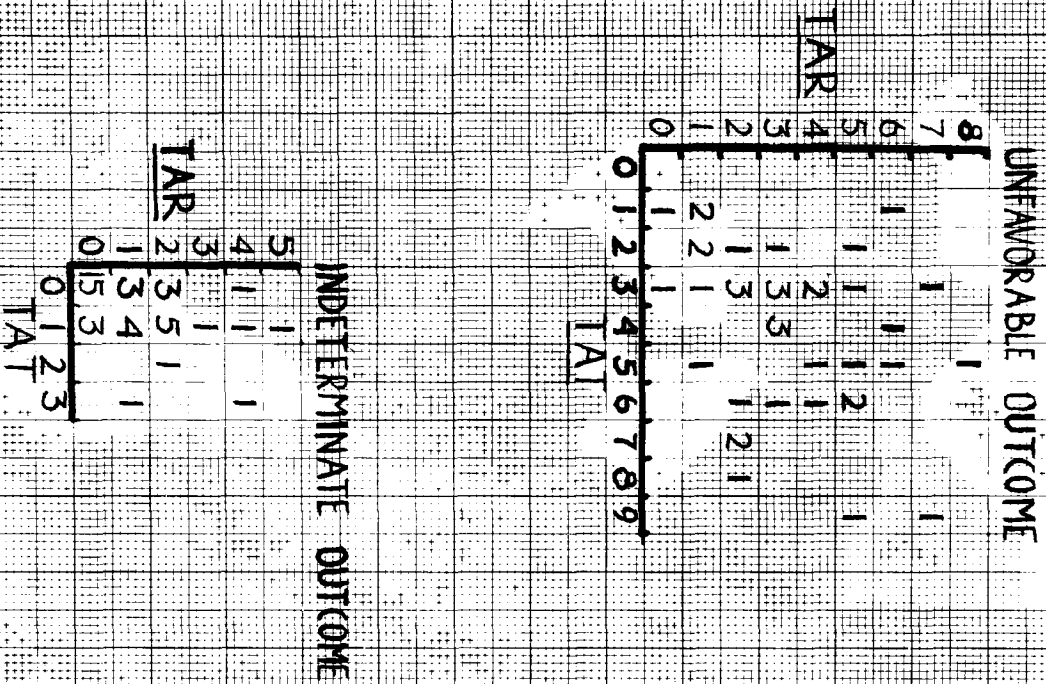


Figure 7. Scatter Patterns Found on the Unfavorable and Indeterminate Outcomes Sub-categories.

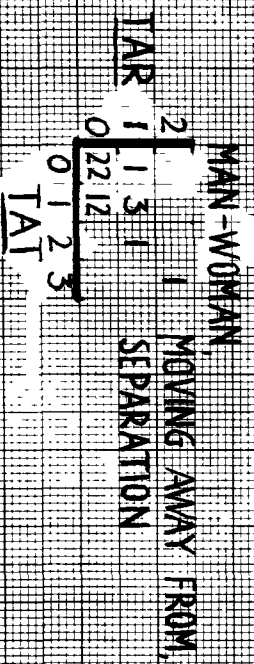
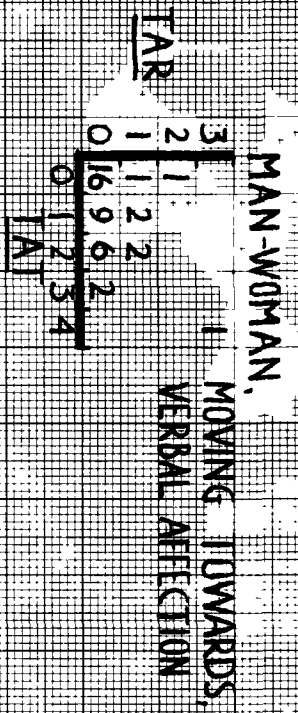
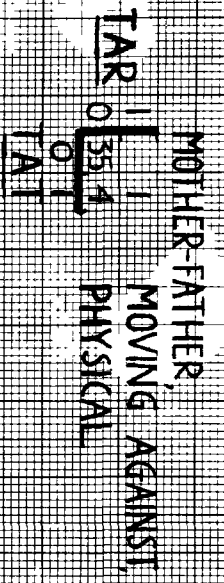


Figure 8. Scatter Patterns Found on the Mother-Father, Moving Against, Physical; Man-Woman, Moving Away From, Separation; Mother-Father, Moving Against, Physical Sub-categories.

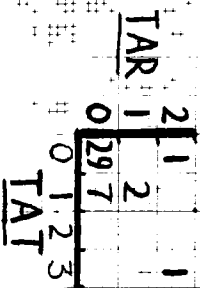
on the TAR, as opposed to only three signs of this interpersonal combination found in the TAR with none in the TAT. The same appears true with the other sub-category presented in Figure 8. Here also the TAT shows its superiority in revealing interpersonal relationships.

The distributions found on Woman-Man, Moving Away From, Separation, Authority-Subject, Moving Against, Death and Friend-Friend, Moving Against, Physical are found in Figure 9. All three sub-categories reveal only a small number of responses with the great majority of subjects (29, 36, and 35) giving no responses which could be scored for these attributes.

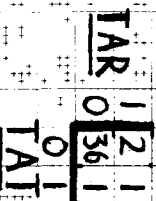
3. Responses to Individual Cards.

Now that a study of the sub-categories found significant in this research has been completed, we can carry the analysis of the data one step further. We can examine the responses to the individual cards of the Rorschach and TAT, and indicate their ability in eliciting the various Feeling, Outcome and Interpersonal Relationship sub-categories found significant in this research.

WOMAN-MAN, MOVING AWAY FROM,
SEPARATION



AUTHORITY-SUBJECT,
MOVING AGAINST,
DEATH



FRIEND-FRIEND,
MOVING AGAINST,
PHYSICAL

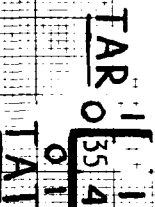


Figure 9. Scatter Patterns Found on Woman-Man, Moving Away From, Separation; Authority-Subject, Death and Friend-Friend, Moving Against Physical Sub-categories.

Figures 10, 11, 12, and 13 present the number of times a particular sub-category was scored on the ten cards of either the Rorschach or TAT. Since this research deals with the TAR most of our attention will be centered on Figures 10 and 11.

A general overview of Figure 10 suggests that Rorschach Cards IX, IV, III and VI, in that order, elicited more responses under the various Feeling sub-categories than did the remaining cards. Cards X, I, and VII showed the least ability to stimulate themes necessary in scoring the various sub-categories of this category. Although there were only a small number of responses to each card under the six sub-categories of the Interpersonal Relationships as shown by Table II, we find that Card II produced the largest number of responses while Cards VI, III and V showed the least ability to elicit Interpersonal Relationships scores.

This section of our analysis was undertaken with the hopes that there would be some cards which would notably elicit a large number of responses in the Categories of Feeling and Interpersonal Relationships. These cards could then be used in some future research. However, the results suggest that no particular cards give us a notable number of responses on the main categories of this scoring scheme.

CARD	SUB-CATEGORIES										
	VERBAL AFFECTION	ANGER	COMPULSION	EFFORT	EXCITEMENT	FRUSTRATION	GUILT	VERBAL HOSTILITY	DEATH HOSTILITY	HOMOSEXUALITY	PLEASURE SEXUALITY
I	1	3		3	2	5	4	13	9	15	1
II	3	4		3	1		6	14			
III	6	3		1	5	3	7	18	6	1	
IV	4	5		4	3	1	1	7	18	7	1
V	2	4	1	3	3		5	16	7	2	
VI	3	4	1	2		2	1	5	22	9	1
VII	6	4		1	3	3	1	4	9	10	
VIII	2	6		3	2		1	6	21	1	5
IX	3	2	6	3	5	3	5	17	7	1	
X	3	3	2	3	1		2	13	7		

Figure 10. Distribution of Scores Attained by the Feeling Sub-categories on the Individual Rorschach Cards.

CARD	SUB-CATEGORIES	SUB-CATEGORIES									
		FAVORABLE OUTCOME	UNFAVORABLE OUTCOME	INDETERMINATE OUTCOME	MOTHER-FATHER, PHYSICAL	MAN-WOMAN, VERBAL AFFECTION	MAN-WOMAN, SEPARATION	WOMAN-MAN, SEPARATION	AUTHORITY-SUBJECT, DEATH	FRIEND-FRIEND, PHYSICAL	
I		17	12	11	1	1	1	1	1		
II		22	13	5	1	2	2				
III		21	16	3	1						
IV		27	11	2	1						
V		23	14	3				1			
VI		21	16	3							
VII		26	11	3	1				1		
VIII		23	13	4	1	2					
IX		22	14	4			1	1			
X		19	14	7	1	2					

Figure 11. Distribution of Scores Attained by the Outcome and Interpersonal Relationships Sub-categories on the Individual Rorschach Cards.

CARD	SUB-CATEGORIES	SUB-CATEGORIES										
		VERBAL AFFECTION	ANGER	COMPULSION	EFFORT	EXCITEMENT	FRUSTRATION	GUILT	VERBAL HOSTILITY	DEATH HOSTILITY	HOMOSEXUALITY	PLEASURE
1		5	4	3	3	1	1	12	3	9	9	8
2		17	1	11	1	1	1	6	9	9	8	8
3BM		8	1	1	2	3	2	12	16	10	10	10
4		20	9	3	3	1	3	12	8	11	1	1
76F		15	2	1	1	4	1	4	13	16	1	1
12F		5	3	1	1	1	2	12	19	1	7	1
13MF		12	5	3	1	1	6	11	28	1	5	4
15		4	1	1	1	1	5	2	30	1	1	1
16		6	6	2	1	1	4	16	1	10	1	1
186F		3	8	1	2	3	1	3	8	23	2	1

Figure 12. Distribution of Scores Attained by the Feeling Sub-categories on the TAT Cards.

SUB-CATEGORIES	CARD	FAVORABLE OUTCOME		UNFAVORABLE OUTCOME		INDETERMINATE OUTCOME		MOTHER-FATHER, PHYSICAL		MAN-WOMAN, VERBAL AFFECTION		MAN-WOMAN, SEPARATION		WOMAN-MAN, SEPARATION		AUTHORITY-SUBJECT, DEATH		FRIEND-FRIEND, PHYSICAL		
		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
	1	27	11	2																1
	2	26	12	2		8	3	2												
	3BM	26	13	1		2	1	1												3
	4	26	14			10	5	3	2											1
	7GF	30	9	1		2														
	12F	17	19	4		1	3	2												
	13MF	17	23			5	2													
	15	13	22	5		1														
	16	22	11	7		4	3	2												
	18GF	19	20	1		1														

Figure 13. Distribution of Scores Attained by the Outcome and Interpersonal Relationships Sub-categories on the TAT Cards.

A further inspection of Figure 10 suggests that most of the sub-categories were found almost equally distributed on the ten cards. However there are some cards which notable highlight some of the sub-categories while others show very little ability to elicit such responses. It may prove useful for future research to point out these cards. The cards having the best and least ability to elicit these feelings are as follows:

(1) Cards III and VII produce the greatest number of responses involving Verbal Affection while Cards I, V, and VIII show little ability to produce such a response.

(2) The feeling Anger is most often found on Card VIII and brought out with comparative infrequency in Card II.

(3) Card IX produces most Effort scores while Card III and VII show little ability to induce such a response.

(4) Excitement appears to be brought out best by Card III while Card VI shows no ability to stimulate such a response.

(5) Cards I and IX appear to elicit Frustration themes equally well while Cards II, V, and VIII show no ability to bring out the same theme.

(6) Verbal Hostility responses are most evident on Cards III and IV while Card X shows lack of ability to bring out this type of hostility.

(7) Death Hostility is brought out most strikingly by Cards VI and VIII while Card VII shows a dearth of this ability.

(8) Cards II and VII produce the greatest number of the Pleasure responses while Cards VIII and III elicit a smaller number of such responses.

An individual card analysis involving the Inter-personal Relationship category appears useless since a glance at Figure 11 shows only few such responses among the ten cards.

For an analysis of the Outcome category we will need to scan Figure 11 which presents this category on the TAR cards, and Figure 13 which presents the TAT cards. By comparing the number of subjects giving Favorable Outcomes with Unfavorable Outcomes on both techniques we find that the TAT produces four cards (12F, 13MF, 15, and 18GF) in which the Unfavorable Outcomes are greater than the Favorable Outcomes. In every card of the TAR there are a greater number of Favorable Outcomes than unfavorable endings.

This seems to suggest that **given** an unstructured stimuli the individual tends to take an optimistic viewpoint concerning himself and the environment around him. It is only when the pictures themselves are gloomy, as is the case in the TAT, that the subjects produce stories which contain unfavorable endings.

4. Theoretical Implications.

Now let us look at the analysis of this research in light of the theory underlying the hypothesis of this study. Although our results suggest that the TAR has little ability in itself to throw light on the content properties of the personality, its use in conjunction with the TAT may add valuable information about this aspect of the personality. For instance, the TAR cards found useful in such important areas as Anger, Frustration, Verbal and Death Hostility may be given as suggested in this research and combined with the information found through the TAT. This same approach to gaining a better picture of the personality may be utilized with the Outcome categories.

That aspect of projective theory concerned with the question of the "depth" of various projective techniques can be brought up here. That is, what level of personality are these two techniques tapping or measuring? This question of "depth" may well be an explanation for some of the poor correlations found between the various sub-categories in this study. An example may clarify this point. The TAT may reveal physical affection on a superficial level, while the TAR may reveal the true and contrasting feelings of the subject in respect to this category. Such speculations seem

to be supported by the writings of Bruner² and Murphy³ who suggest that a less structured stimuli maximizes the need for the individual to call into play inner resources in the structuring of such stimuli. This need to call on such inner resources in producing stories to the Rorschach cards may well be the royal road to tapping or measuring some of the deepest levels of the personality.

The results found in the Interpersonal Relationships categories, having to do with animal and nature responses on the TAR, give rise to another question which may extend our knowledge of projective techniques and personality dynamics. This question is, May not the feelings expressed in such sub-categories as Animal-Animal and Nature-Animal found on the TAR be a means of expressing strongly eglo-alien ideation? That is, May not a subject attribute unpleasant feelings, attitudes, wishes, etc. to animals or nature much more easily than to men or woman?

This study also gives some support to the suggestion made by Zubin⁴ as to the applicability of asking stories

2 Jerome S. Bruner, "Perceptual Theory and the Rorschach Test", in the Journal of Personality, Vol. 17, No. 2, issue of December 1948, p. 160-161.

3 Gardner Murphy, Personality, a Biosocial Approach to Origins and Structure, New York, Harper, 1947, p. 351.

4 M. R. Harrower, Editor, Recent Advances in Diagnostic Psychological Testing, Springfield, Thomas, 1950, p. 99-120.

about movement responses to "Rorschach-like" cards. The results of this study suggest that stories can be gained, not from "Rorschach-like" cards, but from the Rorschach cards themselves. Such a finding could lead to further research in this area.

This chapter has brought us a summary of the results with a discussion of the value of the correlations gained in our research. This was followed by an examination of the scatter patterns of the sub-categories found to be significant. There followed an exposition of the relative ability of the various cards of the Rorschach to elicit the Feelings, Outcomes and Interpersonal Relationships found in Fine's scoring scheme. Finally, implications and questions which were brought up by the research concerning projective theory was discussed.

SUMMARY AND CONCLUSIONS

This research was undertaken in an attempt to devise a technique which would measure both the content and the functional properties of the personality. The technique, called the TAR, utilized the Rorschach in its original form and thereafter asked the subject to make up a story using the responses given originally. Since the usual administration of the Rorschach presents the functional properties of the personality, it was hoped that the TAR would tap the content aspect of personality. The productions obtained from the TAR were compared with the stories obtained on a short form of the TAT. Both techniques were administered individually, at least one day apart, to forty female university students. A common scoring scheme devised by Fine was used and the results were analyzed, using the Pearson r to explore possible relationships between the ideational content of these two techniques. In addition to determining any correlation as a result of something besides chance between the sub-categories of these two techniques, a method for defining the degree of this relationship was used, the coefficient of determination. The results of this analysis seemed to emphasize the slight degree of relationship between the sub-categories found to be statistically significant. A further study of each sub-category was made by plotting a scatter diagram. Finally, a

critical inspection of the productions gained from the individual Rorschach and TAT cards was made.

The results of this study suggest that an unstructured stimulus such as the Rorschach may be used for producing phantasy material through the TAR technique. However, these findings suggest that the phantasy material gained through this technique does not show a close relationship in ideational content to the material obtained through the TAT. Only further research will determine if any applicability can be made of such a technique. Some suggestions for further research could be made:

(1) A different scheme for scoring the TAR may prove more useful than the one used in this study.

(2) An attempt should be made to learn at what level of phantasy this new technique is tapping.

(3) Research into such categories as Animal-Animal and Nature-Nature found on the TAR might throw some light on their meanings.

(4) A study which applies the TAR technique only to those Rorschach cards in which human movement was perceived, may reveal more clues as to the interpersonal relationships of the subject.

BIBLIOGRAPHY

Bruner, Jerome S., "Perceptual Theory and the Rorschach Test", in the Journal of Personality, Vol. 17, No. 2, issue of December 1948, p. 160-161.

Bruner, in this report, is in quest of a theory of perception which can lead to an explanation of "why the Rorschach works". In this search he contributes to the theory which underlies our hypothesis.

Fine, Reuben, "A Scoring Scheme for the TAT and Other Verbal Projective Techniques", in the Journal of Projective Techniques, Vol. 19, No. 3, issue of September 1955, p. 306-309.

This article presents the scoring system used in this research. It reports the validity and reliability of this technique which was developed to measure manifest content.

-----, "Manual for a Scoring Scheme for Verbal Projective Techniques (TAT, MAPS, Stories and the Like)", in the Journal of Projective Techniques, Vol. 19, No. 3, issue of September 1955, p. 310-316.

A description of the scoring technique used in this research is presented in this article. It contains scoring instructions, definition of terms, and examples of this scoring scheme.

Janis, Marjorie G. and Irving L. Janis, "A Supplementary Test Based on Free Associations to Rorschach Responses", in the Rorschach Research Exchange, Vol. 10, No. 1, issue of March 1946, p. 1-19.

This article describes and gives examples of a free association test which employs, as the stimuli for spontaneous associations, the subject's own Rorschach responses. This research can be considered the stepping stone to the method of administration utilized in this study.

Murphy, Gardner, Personality, a Biosocial Approach to Origins and Structure, New York, Harper, 1947, p. 346-354.

Stresses the evidence of the shaping of perceptual organization by our needs and personal prejudices. His contention that the perceived world pattern mirrors to a considerable degree the organized need pattern within helps support the theoretical framework of this research.

Murray, Henry A., et al., Explorations in Personality, A Clinical and Experimental Study of Fifty Men of College Age, New York, Oxford, 1938, xii-761 p.

A report of a two and a half year research using various testing procedures which reveals that of all the techniques used the TAT most readily reveals the subjects' own feelings, emotions, and attitudes.

Rickers-Ovsiankina, Maria, "Some Theoretical Considerations Regarding the Rorschach Method", in the Rorschach Research Exchange, Vol. 7, No. 2, issue of April 1943, p. 41-53.

A valuable insight of Rorschach has been largely overlooked according to Rickers-Ovsiankina. That is, that the Rorschach technique can be used to throw light on both the content and the functional properties of the personality. This research, in a small way, attempts to remedy this oversight.

Rorschach, Hermann, "The Application of the Form Interpretation", in Psychodiagnostics, A Diagnostic Test Based on Perception, Berne, Huber, 1942, p. 184-216.

This posthumous publication suggests the train of thought which Rorschach was pursuing before his death. This consisted of utilizing both the formal and content aspects of this technique in order to gain greater insights into the personality of the individual. The value of such a technique is shown when the interpretations based on a "blind" Rorschach protocol are compared with the material gained through psychoanalysis.

Zubin, Joseph, "Test Construction and Methodology", in Recent Advances in Diagnostic Psychological Testing, Springfield, Thomas, 1950, p. 99-120.

This author reviews various projective techniques and concludes that nearly all of these techniques are found wanting on one score or another. He suggests new approaches to these old techniques and the creation of entirely new techniques. It is in this review that the author suggests the possibility of utilizing a TAT approach on an unstructured stimuli such as the Levy Movement blots.

APPENDIX I

CORRECTION GRID ACCORDING TO
FINE'S SCORING SYSTEM

Name

- M-C Mother-Child
- C-M Child-Mother
- F-C Father-Child
- C-F Child-Father
- M-F Mother-Father
- F-M Father-Mother
- S1-S1 Sibling-Sibling
- M-M Man-Man
- M-W Man-Women
- W-W Woman-Woman
- W-M Woman-Man
- S-A Subject-Authority
- A-S Authority-Subject
- F-F Friend-Friend
- S-S Stranger-Stranger
- 0 Other

III. INTERPERSONAL RELATIONSHIPS																				
1. Moving Towards																				
a. Affection																				
1) Verbal																				
2) Physical																				
b. Acceptance																				
c. Dominance																				
d. Submission																				
2. Moving Against																				
a. Verbal																				
b. Physical																				
c. Death																				
3. Moving Away From																				
a. Separation																				
b. Rejection																				
TOTAL																				

APPENDIX 2

ABSTRACT OF

The Value of a Thematically
Administered Rorschach

APPENDIX 2

ABSTRACT OF

The Value of a Thematically Administered Rorschach¹

The purpose of this research was to devise a technique which would measure both the content and the functional properties of the personality. This was done by using the Rorschach cards and asking the testee to elaborate stories from the responses given to the cards initially.

The subjects were forty female university students attending Notre Dame College, Notre Dame Convent and the Normal School, all located in Ottawa, Ontario. The experimental design called for the administration of the TAR and a short form of the TAT individually.

The results were then submitted to the scoring scheme devised by Fine. Only 21 of the 138 sub-categories that were found scorable on both techniques achieved correlations $r_x(r)$, which would lead us to reject the hypothesis, viz., that there is no relationship between the results obtained with the TAR and those obtained on the TAT, when both are used for the study of ideational content, and both are analyzed with a common scoring system.

¹ Edward Vatovec, *Ph.D.* Dissertation presented to the School of Psychology, University of Ottawa, Ontario, May 1958, x-93 p.

Those 21 sub-categories were also tested by the coefficient of determination, scatter diagrams, and by a critical inspection of the productions obtained from the individual cards.

The results of this study suggest that an unstructured stimulus such as the Rorschach may be used for producing phantasy material through the TAR technique. However, the findings suggest that the phantasy material gained through this technique does not show a close relationship, ^{when measured by r ,} in ideational content to the material obtained through the TAT.