



1952

A Comparison of the Responses of Adjusted and Maladjusted Children on a Thematic Apperception Test

Therese Lorraine De Sousa
Loyola University Chicago

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A COMPARISON OF THE RESPONSES OF ADJUSTED
AND MALADJUSTED CHILDREN ON A
THEMATIC APPERCEPTION TEST

by

Therese Lorraine De Sousa

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfillment of
the Requirements for the Degree of
Master of Arts

June

1952

LIFE

Therese Lorraine De Sousa was born in Chicago, Illinois on September 14, 1923.

She was graduated from the Maria Academy, Chicago, Illinois, in June of 1941, and from the Chicago Teacher's College in June, 1949, with the degree of Bachelor of Education.

The author taught mentally retarded children for the next year and a half at Longfellow school, Chicago, Illinois. She is now employed as a psychologist for the Bureau of Child Study, Chicago Board of Education.

She began her graduate studies at Loyola University in June, 1949.

ACKNOWLEDGMENTS

The writer owes a special debt to Patricia Bledsoe, child psychologist at the Loyola Guidance Center, whose aid in analysis of the data gathered was indispensable. She also was part of a group of three clinicians who provided blind analyses of the stories. The author is indebted too to Henry Lambin and Fred Whalen who also submitted blind analyses.

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CHAPTER I

STATEMENT OF THE PROBLEM

The behavior problem child presents a vital challenge to school psychologists today. Adequate instruments have been devised and standardized to identify the mentally deviate; ingenious testing techniques have been developed to classify the educational deviant. Such discriminating diagnosis has led over a period of years to provision of modifications in curriculum, teaching techniques, and method for the exceptional child. Not so the case with the maladjusted child. His difficulty is neither easily diagnosed nor easily remedied. In a sense, this is not entirely unexpected. The mentally and educationally deviant present no such difficulty simply because they remain within known and well-established limits. They follow a well-defined pattern and automatically clarify themselves by their conformity to it. The behavior problem, on the other hand, is problematic partly because of its nonconformity to any completely known or established limits. Even the best attempt to define maladjustment merely emphasizes its many facets. In the absence of clearly defined criteria, diagnosis itself requires months of costly effort and therapy must be individual and time-consuming. There is a great need for better, more rapid, well-standardized diagnostic techniques for the study of the maladjusted child. Only when such diagnostic help is available can more efficient remedial and preventive measures be delineated and provided.

The study of personality through projective techniques seems an especially promising solution to this difficulty. Based upon the assumption that when a person interprets an ambiguous situation he is apt to express his own personality in the process, projective techniques have enjoyed considerable attention in the recent literature. Their particular advantage in the study of personality lies in the ease with which unconscious needs, sentiments and conflicts not easily obtainable in an interview are uncovered. Further, they permit the elaboration of parental, sibling, and general social relationships in such a way that a picture of the psychodynamics of a case may be developed in an economical and brief period of time. The use of pictures as stimuli for personality projection received its greatest impetus from Morgan and Murray who devised the Thematic Apperception Test, a method for the stimulation, recording, and analysis of fantasy.¹ The test consists of a series of pictures which the subject is asked to use as a starting point for fantasy. He is asked to make up a story which tells how the depicted scene came about, what is going on at the moment, what the characters are feeling and thinking, and what the outcome will be. The stories that a subject tells can then be analyzed in a great many ways depending upon the investigator's purpose. Murray proposed analysis in terms of the hero and his needs, the environmental press, the theme and outcome, on the basis that the unique contribution of the Thematic Apperception Test was to disclose how and what a person imagines; how he uses his mind on an imaginative task and

1 Henry A. Murray, Manual for the Thematic Apperception Test, Cambridge, Mass., 1943, 2.

what kind of situations and motives he imagines. Others have concentrated on analysis in terms of structure or language variables. Although methods of administration, scoring, and interpretation differ widely from investigator to investigator, there is, at least, general agreement that the method is a valuable device for bringing to light the conscious and unconscious impulses, defenses, and conflicts of the individual.²

A recent modification of the Thematic Apperception Test designed for use with children is the Children's Apperception Test, devised by students of Murray, Leopold and Sonya Bellak.³ On the assumption that children tend to identify more readily with animals, the Bellaks use a series of ten pictures depicting animals in various human-like situations. The test is designed for children of both sexes between the ages of three and ten, and the pictures are intended to facilitate an understanding of the child's relationships to his world. Among the specific problems which the pictures are structured to elicit are feeding problems, sibling rivalry, attitudes toward parental figures and the way in which these figures are apperceived, the child's fantasies around aggression, acceptance by the adult world, and certain other specific problems such as night fears, toilet training, and parental response to them. Thus structured, the Children's Apperception Test seems especially suited to investigation of the needs, conflicts, and

2 John E. Bell, Projective Techniques, New York, 1948, 237.

3 Leopold and Sonya Bellak, Manual for the Children's Apperception Test, New York, 1949, 1.

attitudes of the behavior problem child.

It is the purpose of this study to systematically compare the Children's Apperception Test stories of the behavior problem child with those of the well adjusted child to determine what differences, if any, exist in the fantasy productions of the two groups. By observing the way in which a child organizes the small sample of experience which is presented to him in the test situation, one may hope to gain insight into the way in which that child organizes all experience, and by comparing the performances of two such groups, to discover differences in the manner in which the apperceptive material is organized and treated by the two groups. A related purpose is to investigate the possible clinical utility of such an instrument for understanding, and consequently, for dealing with the behavior problem child.

CHAPTER II

REVIEW OF THE LITERATURE

Earliest investigations of the picture-story technique with children were concerned with determining the type of picture most suitable for eliciting fantasy material. Pertinent here is the work of Symonds¹ who assembled a set of eighty-one pictures to explore the possibilities of this method with children. These were presented in a high school English class as a test of creative imagination. From the eleven hundred and sixty-eight stories obtained, Symonds concluded that those pictures which were best for eliciting fantasy material were those which had a minimum of detail and contained characters with which the subject could readily identify. Also useful were pictures which were vague in theme and incomplete in content.

A somewhat similar conclusion was reached by Vernon² who tested children between the ages of seven and twelve for immediate recall of pictures. He found that pictures having a central unifying event facilitated an interpretative response whereas a picture showing a collection of minor details induced only description and enumeration. He confirmed also Binet's

1 P. M. Symonds, "Criteria for the Selection of Pictures for the Investigation of Adolescent Phantasy," J. of Abnormal and Social Psychology, XXXIV, April, 1939, 271-74.

2 M. D. Vernon, "The Relation of Cognition and Fantasy in Children," British J. of Psychology, XXX, April, 1940, 273-94.

earlier observations that three successive stages could be distinguished in the verbal responses of the child to the perception of fairly complicated pictures. The younger child, he found, responds enumeratively. At the age of about seven, the normal child is able to give simple descriptions of pictures, which gradually become fuller as his age increases. Irrelevant detail is suppressed and the actions and emotions of the people depicted are inferred and described in what Vernon calls partial interpretation. He states that it is not until the child is eleven or older that he is able to fully understand a fairly complicated picture and interpret it as a whole. He found also that in children whose natural development has been retarded or distorted by lack of intellectual development, poor health, or physique, or emotional disorder, the three stages may be modified in various ways and the child may be unable to reach the final stage of imaginative synthesis. In such cases, the child's expression represents an earlier stage in the process of cognition which may be accompanied by perseveration, stupid inventions, and failure to respond. In another case, he points out, fantasy may be over-active so that the child's mind seems to be dominated by it, and his contact with reality is impaired. Inventions are very numerous, containing much description of emotion, movement, and color in such cases. In another instance, the child may be lacking in the ability to express fantasy, and he seems inert, constricted, and unable to respond except in a very brief and stereotyped manner.

Amen³ studied developmental tendencies in perceptual reaction to pictures also. She reaches the similar conclusion that there is a tendency to interpret the visual stimulus first in terms of static form, and later in terms of activity. Interpretation in terms of inner activity, thought or feeling, is a more mature pattern of interpretation than interpretation in terms of outward activity. She finds also a tendency to interpret a visual stimulus first in terms of a primitive unanalyzed whole, or a detail standing for the whole, with gradual development of the capacity to enlarge the whole and to increase the detail. Finally, she finds a tendency toward some degree of self-identification with picture stimuli, or the projective tendency itself.

Working with pre-school children, Horowitz and Murphy⁴ found that the use of pictures could be very productive in the study of the young child's personality and attitudes. They devised several techniques which simplified the test situation for the child by the use of a choice procedure. In one instance, the child is restricted to a choice between two pictured situations dealing with parent-child and sibling relationships. In terms of the choices the child makes, the authors compare his ideas about his position in the family with reality. The child's self-identification in terms of familial position can also be clarified in this fashion. A variation of this method was also used in which two pictures of contrasting views of the same type of

3 Elizabeth W. Amen, "Individual Differences in Apperceptive Reaction," Genetic Psychology Monographs, XXIII, May, 1941, 319-385.

4 R. E. Horowitz and L. B. Murphy, "Projective Methods in the Psychological Study of Children," J. of Experimental Education, VII, March, 1938, 133-140.

situation were presented, and the child was asked to identify his situation. The series of pictures was then repeated with instructions to choose the picture liked best. This technique was designed to reveal the gap between the world the child perceives to be his and the world he desires. Pictures were also used to clarify and explore the child's conceptions of his parents, siblings, teachers, and status in home and school situations as well as to secure a projection of the child's developing social and economic values.

Thus we find that general investigations of the technique lend some support to our belief that the method can be profitably used with children. Although there is no published material, as yet, in which the Children's Apperception Test has been employed, a number of studies using the Thematic Apperception Test and the Symonds Picture-Story Test are to be found in the literature. Leitch and Schafer⁵ compared the Thematic Apperception Test stories of fifteen psychotic and fifteen nonpsychotic maladjusted children. They found that for purposes of diagnosis, the analysis of the formal structure of the stories and the formal characteristics of their content is more useful than analysis of the ideational content. Those formal characteristics of the stories which were found to be particularly significant include incoherence, contradictions, queer ideas and verbalizations, over-specific statements, repetition of phrases, and introduction of the examiner into the story. Neologisms, nonsense rhyming, manneristic speaking, autistic logic,

⁵ Mary Leitch and Sarah Schafer, "A Study of the Thematic Apperception Test on Psychotic Children," American J. of Orthopsychiatry, XVII, April, 1947, 337-342.

overgeneralizations, and symbolic interpretations were also noted. In the perceptual sphere, disturbances were of three varieties. They included cases where important details were omitted, details were distorted, or perceptual difficulties arose which the subject did not attempt to resolve. Also noted was the occurrence of violence and death themes in the stories. Although the range of emotions expressed in the stories of both groups appeared equal, violence appeared much more frequently in the stories of the psychotic children. In summary, then, the stories of psychotic children are characterized by the presence of several indicators of severe disturbance of thought organization, gross perceptual distortions, and frequent reference to violence and death. Since the great majority of the indicators were found only in the psychotic group, criteria for identifying maladjusted children through their test performance are negatively presented in this study, and are not, therefore, likely to be of much value in our analysis. Another investigation of childhood psychosis serves also to indicate the usefulness of this method with clinical groups. Des Laurier and Halpern⁶ examined one hundred or more childhood schizophrenics before and after shock therapy. They found the Thematic Apperception Test most useful in bringing to light the psychological mechanisms used by the subject. They note that the child's denial of reality as well as his struggle to gain some true contact with the world around him often appears dramatically in his stories.

⁶ A. Des Lauriers and F. Halpern, "Psychological Tests in Childhood Schizophrenia," American J. of Orthopsychiatry, XVII, January, 1947, 57-67.

Bellak, Levinger, and Lipsky⁷ point out the value of the Thematic Apperception Test for the study of developmental changes in a personality. They administered the test to a sixteen-year old girl, an essentially normal adolescent, and eight months later repeated the test. During the first examination, the girl was found to have a very compliant attitude toward her mother, who was seen as benevolent, although somewhat domineering. This was substantiated by the content of the stories. In the stories of the first record, the girl saw her mother as demanding and limiting, and she complied with hesitation and unhappiness. In the second set of stories, the content was similar, except that the general tone was happier. There was a striving for autonomy that was permitted by the subject to be successful and there was also development in the direction of heterosexual adjustment. The same problems were still operative as in the first case, but in the second set of stories they were resolved more satisfactorily and the subject attempted self-realization and independence from the mother. In other words, the subject had definitely matured in the eight month interval between the two tests, and the Thematic Apperception Test, in the opinion of the authors, was sensitive enough to reflect this maturation. From this experience, the authors feel that the test is valuable in reflecting maturational processes and could be used for much needed longitudinal research in personality development in the normal and disturbed child.

7 Leopold Bellak, Leah Levinger, and Esther Lipsky, "An Adolescent Problem Reflected in the Thematic Apperception Test," J. of Clinical Psychology, VI, July, 1950, 295-97.

In an analysis of anxiety reactions in young children, Temple and Amen⁸ used a series of twelve pictures of their own selection which were chosen for the child from four to six years of age. They found that the most important areas of anxiety in a normal group are in parent-child relationships, and in the area of daily routines. They state further that they found a close relationship between the pattern of anxiety and the type of behavioral adjustment. They point to the need for a normative approach to a projective study of anxiety in little children.

Working with crippled children, Broida, Cruickshank, and Izard⁹ administered a modified form of the Symonds Picture-Story Test to thirty crippled children in an effort to determine the usefulness of this instrument in psychological diagnosis of handicapped children. The authors analyzed the stories in terms of theme related to family, aggression, economic concern, separation, anxiety, depression and repentance among others. They noted that all of the children were deeply in need of social acceptance. Of major importance was the finding that the presence of feelings of fear is coupled with a desire to experience social participation. It was also observed that the crippled children who participated in group activities experienced significant feelings of guilt. Generally they concluded that the test was an

8 Rita Temple and Elizabeth W. Amen, "A Study of Anxiety Reactions in Young Children by Means of a Projective Technique," Genetic Psychology Monographs, XXI, November, 1944, 59-114.

9 D. C. Broida, W. Cruickshank, and Carroll Izard, "Thematic Apperception Reactions of Crippled Children," J. of Clinical Psychology, VI, July, 1950, 243-48.

efficacious device for revealing maladjustment in crippled children. The scheme of analysis used, however, seems unwieldy and particularly subject to semantic difficulties and it is likely that a more detailed approach in fewer areas might have resulted in more specific criteria of maladjustment in crippled children, as well as in other clinical groups.

One of the few applications of this method to the maladjusted child is found in the work of Balken and Vander Veer¹⁰ who administered a modified form of the Thematic Apperception Test to forty children referred to the Psychiatric Division of the University of Chicago Clinic for treatment of neurotic symptoms. The test materials consisted of a set of twelve pictures suggesting a variety of conflictual situations with which a number of fantasies could be readily associated. The pictures were collected from a variety of sources, including some from the Thematic Apperception Test which did not directly suggest death, murder, suicide or erotic situations. In regard to administration, the authors stress the importance of establishing good rapport in testing children. However, they also maintain that if, notwithstanding all of the possible reassuring devices, the child remains suspicious, fearful or resistant, then his attitude is largely a function of factors inherent in his personality and is therefore reflected in his relationship with the examiner as it would be in all of his relationships. They note, further, that the immediate responses of children below ten years

¹⁰ Eva R. Balken and A. Vander Veer, "The Clinical Application of a Test of Imagination to Neurotic Children," American J. of Orthopsychiatry, XII, January, 1942, 68-80.

of age are characterized by description and enumeration. When the child has finished his story, the examiner must use tactful inquiry to elicit a completed story. They conclude that such reactions to the pictures follow from observations by Binet and others that the stages of enumerations, description, and interpretation respectively depend upon the chronological age and the intelligence of the child. On this basis, full interpretations should not be expected until adolescence with the child of normal ability. The authors also discovered that, between the ages of ten and fifteen, the verbal productions of the subjects approximated in varying degrees, the formal and contextual characteristics of the adult neurotic subject. These children reveal a greater variety of defenses, in addition to denial which is characteristic of the younger child, than do the young children. The synthesis of imagination and intelligence is more apparent in the stories of the older children, and the stories which were found to be those of the superior subjects.

A later analysis of the stories¹¹ in terms of the psychoanalytic orientations of the authors revealed that fantasy frankly revealing repressed impulses often produces an immediate strengthening of the defense forces and is followed by a sterile, evasive, noncommittal response to the next picture. Also, dynamic material called forth by one picture may not be verbalized immediately, but may appear as a delayed response to a subsequent, emotionally neutral picture. Fantasies were found to be dynamically related in that ex-

11 Eva R. Balken and A. Vander Veer, "Clinical Application of the Thematic Apperception Test to Neurotic Children," American J. of Orthopsychiatry, XIV, July, 1944, 421-40.

pressions of hostility were often followed by another story containing expressions of guilt because of the hostility, and then by another which contains attempts at restitution. Expression of disturbing material often induced tensions in the children which were unrelieved by speech, and led to sudden fatigue in the child. An attempt was also made to evaluate the effects of physical and emotional trauma on the children's stories. With the children who had serious organic disease, they discovered that their story productions revolved largely around disease, accidents, operations, and hospitals. However, these experiences were never directly related to the subjects themselves, and in no case was there any reference to the subject's illness. In the emotional area, the authors investigated the stories of children who had strong sexual curiosity. The stories of such children were found to deal no more directly with sexual themes than did the productions of children who did not display such abnormal curiosity. Their stories, however, contained many more subtle indications. With the children whose neuroses were precipitated by emotionally traumatic experiences, the authors found no direct references to these experiences in their stories. Generally, they found that projections of anxiety, aggression, hostility and depression tended to predominate in the stories of the neurotic children. They conclude that the test brings into sharp relief certain psychological features of the case, confirms and supplements the psychiatrist's formulations, and thus contributes to a more rapid and accurate clinical evaluation.

Schaefer and Leitch,¹² working with twenty-two nursery school children from the ages of three to five, administered to each child the Stanford-Binet, the Rorschach, and the first ten cards of the Thematic Apperception Test. Without knowledge of these test results, psychiatrists rated the children on a three-point scale of adjustment. These ratings were based on three psychiatric interviews with each child, the case history, and observational data obtained from the teachers. Twelve of the twenty-two cases were described by the psychiatrists as adequately adjusted, four as moderately maladjusted, and six as severely maladjusted. The test records were then inspected for criteria that might distinguish the three levels of adjustment.

Although the Rorschach was found to be the most effective single test for distinguishing between the groups, the Thematic Apperception Test was also found helpful. Most useful as far as the latter was concerned were the quality of aggressive content of the stories, the nature of perceptual distortions, and the presence of blocking. In analyzing the aggressive content of the stories, the authors distinguished between controlled and uncontrolled aggression. The latter was characterized by gory, unusually intense expressions concerning violence, destruction and death which overshadowed all other elements of the story. The controlled type of aggression was characterized by a much less intense and less detailed expression concerning aggressive acts of a more common variety, such as shooting, spanking and

12 Sarah Schaefer and Mary Leitch, "An Exploratory Study of the Usefulness of a Battery of Psychological Tests with Nursery School Children," American J. of Psychiatry, CIV, April, 1948, 647-52.

fighting. The authors stress the fact that stories with aggressive content tended to occur in all cases. Children who showed little overt aggression clinically gave very few stories of either type. Children who were clinically overtly aggressive but without severe emotional maladjustment gave many stories of the modulated type and in a few instances one or two stories of the uncontrolled type. The severely maladjusted children, it was found, gave many stories in which the uncontrolled aggression was present.

Although perceptual distortions were quite common, and the misrecognition of sex was frequent, absurd distortions were found to be significant. Three such cases occurred in the severely maladjusted group and none in the other groups. Similarly, blocking occurred quite frequently in all groups. Repeated blocking, however, proved to be characteristic of the severely maladjusted group. One such case in this group had eight failures on the ten cards. The average number of such indicators on all the tests for each group was found to be 0.4 for the adequately adjusted, 2.3 for the moderately maladjusted, and 4.7 for the severely maladjusted. The authors conclude that projective techniques are valuable tools in determining the presence and the severity of maladjustment in children. Since our comparison in this study relates only to presence or absence of maladjustment, differences discovered should be more sharply defined than in the Schafer and Leitch study, and more detailed content analysis should be possible.

Also working with maladjusted children, Saxe¹³ administered the Thematic Apperception Test to twenty children between the ages of nine and

13 Carl H. Saxe, "A Quantitative Comparison of Psychodiagnostic Formulations from the Thematic Apperception Test and Therapeutic Contacts," *J. of Consulting Psychology*, XIV, April, 1950, 116-127.

seventeen who were selected from the psychotherapeutic case load of the Bureau of Child Guidance in New York city. Analysis of the stories was undertaken in the form of an eighty-three item questionnaire based upon the major themes recorded. The therapist, after four months work with the child, filled in the questionnaire which was then compared with that of the investigator who had no contact with the child other than the actual administration of the test. Substantial agreement between the two indicates that the Thematic Apperception Test offers general diagnostic clues similar to those gained from therapeutic contacts. It must be pointed out, however, that semantic misunderstandings were certainly involved in the use of the questionnaire since many of the items were fairly lengthy descriptions of conflict and its resolution. Saxe is aware of this difficulty and suggests that refinement of the questionnaire method may yield better results.

Most nearly similar to the work outlined here is the study of the adjusted and maladjusted boys by Cox and Sargent¹⁴. Fifteen boys in an "emotionally stable" group and fifteen in an "emotionally disturbed" group were given ten pictures of the Thematic Apperception Test. These were projected on a screen and the subjects were given five minutes in which to write each story. Upon analysis, they found an apparent constriction of responses in the disturbed group. This was evidenced in the shorter length of the stories, and the greater frequency with which the stories contained no ex-

14 Beverly Cox and Helen Sargent, "Thematic Apperception Test Responses of Emotionally Disturbed and Emotionally Stable Children," J. of Projective Techniques, XIV, March, 1950, 61-73.

pression of feelings, needs, threats, actions or outcomes. It was further found that the judgments of eight clinicians who read the stories of the fifteen disturbed boys and tried to classify them as disturbed or stable were poor and were considered a significant departure from accuracy. Since the method of administration used here did not permit inquiry, however, and accepted as completed stories material in which no action or outcome occurred, we may find with other investigators cited that individual administration and tactful inquiry will yield quite different results.

A more recent variation of the picture-story technique is the use of animals in human-like situations instead of humans on the supposition that children are better able to identify with this type of stimulus. Bills¹⁵ reports on a comparison of Thematic Apperception Test stories and stories told to a series of animal pictures that he devised. The forty-eight children from five to ten years of age were tested with ten animal pictures and the first ten of Murray's cards. His results indicated that the total word count elicited by the animal pictures was significantly greater than that obtained for the Thematic Apperception Test cards. It appeared to be easier for the children to formulate stories in response to the animal cards. Only one animal card was rejected as compared with eighteen of the others. Qualitatively, the stories told to the animal cards appeared to have more coherency than those told to the Thematic Apperception Test cards. Both sets of cards produced material of a fairy tale nature, but neither produced a sufficient

¹⁵ Robert Bills, "Animal Pictures for Obtaining Children's Projections," J. of Clinical Psychology, VI, July, 1950, 291-93.

amount to interfere with content analysis.

In a later study, Bills in cooperation with Leiman and Thomas¹⁶ presents his findings on a comparison of the qualitative aspects of the projected material of the two tests. Eight children were selected from a third-grade class and were given six individual nondirective play therapy interviews. In the week following the sixth play therapy contact, each child was given the animal card test and the first ten of the Thematic Apperception Test cards. In order to objectify the scoring, only manifest needs were scored, using the needs proposed by Murray. The needs shown by a child in the final three play therapy interviews were selected as the criteria for manifest needs. All tests were scored independently by the three authors. They concluded that the play therapy, the animal cards, and the Thematic Apperception Test displayed an agreement among manifest needs, and that the animal pictures and the Thematic Apperception Test reveal to a small degree the same needs, and are valid for revealing these needs as compared with other data. The authors admit the limitations of their own set of cards since they were not structured to investigate such areas as parent-child and sibling relationships. Nevertheless, they believed that their animal cards were as useful and as valid as the Thematic Apperception Test cards, that they provided an easier situation for formulating projective stories than did the Thematic Apperception Test cards, and that their animal cards were adaptable to revision so that they could produce more meaningful results than the Thematic Apperception Test.

¹⁶ Robert Bills, Charles J. Leiman, and Richard W. Thomas, "A Study of the Validity of the Thematic Apperception Test and a Set of Animal Pictures," J. of Clinical Psychology, VI, July, 1950, 293-295.

Thus our review of studies investigating the utility of the method indicates that while the method may be suitable for children, the material can be improved. Bellak's innovation of the Children's Apperception Test is a step in this direction. Because of its recent publication, however, there is not as yet any research available indicating how valuable the test may or may not be. The test itself was released on the relatively small sample of one-hundred children's records on the assumption that a projective test does not need the validation and establishment of norms so essential to other types of tests.¹⁷ In the majority of the one-hundred cases used, clinical findings were used to validate the blind analyses of the cases. Bellak reports that the pictures brought out problems which the clinical workers had pointed out, and further, that the stories illuminated the dynamic background of these problems. For interpretation, the Bellaks suggest content analysis based upon the hypothesis of apperception and psychoanalytic understanding. An analysis sheet dealing with ten variables considered essential is suggested for the study of each story. It is suggested that the test may be most useful clinically in determining what dynamic factors may be related to a child's reaction in a group, in school, or to events at home.

A recent "TAT Newsletter"¹⁸ indicates that a large number of studies using the new test are now in progress. These include comparisons of various clinical groups, a longitudinal study of pre-school children, an

17 Leopold and Sonya Bellak, "An Introductory Note on the Children's Apperception Test," J. of Projective Techniques, XIV, June, 1950, 173-79.

18 R. R. Holt, "TAT Newsletter," J. of Projective Techniques, XV, Dec. 1951, 536-539.

evaluation of dynamic story content in comparison with manifest behavior, and a study of emotional development as evidenced in story content. Other studies using the Children's Apperception Test which are now in progress include a comparison of teacher rating of adjustment with the degree of adjustment apparent in the test stories. Also being investigated is the effect of the order of the pictures on productivity. A paper presented at the Midwestern Psychological Association meeting in 1950 dealt with the effect of variations in ambiguity on projections in which incomplete line drawings of the test pictures were used. Such progress reports indicate that we may expect to see a good deal of the Children's Apperception Test in the literature in the near future.

In summary, we may note that general investigations of the utility of the method indicate that the technique may be a valuable tool in the study of children. In general, we find that a number of investigators are agreed that pictures having a central unifying event, a minimum of detail, and characters with which the child can readily identify lend themselves most readily to an interpretative response. Although Vernon's¹⁹ findings concerning age differences in interpretative response do not correspond closely with those of Amen²⁰ the difference may well be due to the relative complexity of Vernon's pictures in comparison with those of Amen. Later work has indicated

19 M. D. Vernon, The Relation of Cognition and Fantasy in Children, British J. of Psychology, XXX, 273-294.

20 Elizabeth W. Amen, Individual Differences in Apperceptive Reactions, Genetic Psychology Monographs, XXIII, 319-385.

that the method, with carefully chosen, simply-structured pictures, can be productive even on the pre-school level.²¹

More specific investigations, particularly those using the Thematic Apperception Test, indicate that the technique is useful in distinguishing clinical groups and for reflecting maturational trends. Indicators of psychosis and mental deficiency have been delineated, and various clinical groups compared as to both structure and content variables. Work with maladjusted children by Balken and Van der Veer²² and Schafer and Leitch²³ has suggested that the projective method is useful both for indicating the presence and the degree of maladjustment. In general, these investigators are agreed that projections of anxiety, aggression, hostility and depression tend to predominate in the stories of the maladjusted child. Schafer and Leitch make the further useful distinction between controlled and uncontrolled types of aggressive content. Both studies also point out the incidence of repeated blocking and absurd distortions in the stories of the maladjusted group. On the contrary, Cox and Sargent²⁴ find constriction, shorter stories,

21 Rita Temple and Elizabeth W. Amen, A Study of Anxiety Reactions in Young Children by Means of a Projective Technique, Genetic Psychology Monographs, XXX, 59-114.

22 Eva R. Balken and Adrian H. Van der Veer, The Clinical Application of the Thematic Apperception Test to Neurotic Children, American J. of Orthopsychiatry, XIV, 421-440.

23 Sarah Schafer and Mary Leitch, An Exploratory Study of the Usefulness of a Battery of Psychological Tests with Nursery School Children, American J. of Psychiatry, CIV, 647-652.

24 Beverly Cox and Helen Sargent, Thematic Apperception Test Responses of Emotionally Disturbed and Emotionally Stable Children, J. of Projective Techniques, XIV, 1950, 61-73.

and little or no expression of feelings, needs, threats, or outcomes.

Methods of administration, as modified for children, vary from a question and answer technique to a paper and pencil approach. Generally, however, it is agreed that individual administration with an opportunity for inquiry and the use of reassurance and encouragement is most fruitful. Similarly, methods of analysis vary from study to study, with theme analysis, structure analysis, and need-pressure analysis most widely used. Frequent expressions of the inadequacy in certain areas of the particular method of analysis used are common, and discussion of the semantic difficulties of any particular schema is often found.

CHAPTER III

DESIGN OF THE RESEARCH

The thirty subjects used in this study were chosen from two neighboring public schools on the basis of referral to the school psychologist for study as a behavior problem, and the incidence of checks on a teacher check-list patterned after Wickman's.¹ (Appendix II, Page 58) In the school from which the well adjusted sample was chosen, teachers in grades one through five were asked to choose the six children they considered best adjusted in their rooms and rate them on the basis of behavioral manifestations in the classroom situation as presented in the check-list used. From this group of thirty children, fifteen who showed few or none of the behavior problem symptoms listed were chosen to constitute the well adjusted group. Another twenty-three children who had been referred to the school psychologist as behavior problems were also rated by their teachers on the check-list. Fifteen of this group were chosen as the maladjusted sample.

In order to rule out other factors which might unduly influence results, chronological age, intelligence and socio-economic situation were also considered in choosing the groups. Chronological age ranged from six through ten years in each group with six children at each age level repre-

1 E. Koster Wickman, Children's Behavior and Teachers' Attitudes, New York, 1928, 247.

sented. The mean chronological age in the adjusted group was ninety-eight months and in the maladjusted group, ninety-nine months. The reliability of the difference between means was calculated according to Garrett's² formula for small samples and a critical ratio of .164 found, indicating that there is no significant difference in chronological age between our groups. Similarly, in regard to intelligence, an effort was made to keep the groups homogenous and children were chosen in the IQ range from ninety to one-hundred and ten. The mean IQ in the adjusted group was one-hundred and three and in the maladjusted group, one-hundred and two. Using the same formula as for chronological age, the critical ratio was found to be .435. Again the difference between means is not significant. In regard to socio-economic status, both groups were chosen from the same neighborhood which might best be described as low-average in the socio-economic scale.

The test was administered individually to each child in a private room in his own school situation since it was felt that familiar surroundings would be helpful in establishing and maintaining rapport. A concealed wire recorder was used to secure the responses. This permitted a later analysis of the entire response, as well as pauses, peculiar inflections, and particular emphases. A conversation period preceded each test in an attempt to be certain that each child was at ease before actual testing was begun. This was doubtless made easier for the examiner in view of the fact that the

2 Henry E. Garrett, Statistics in Psychology and Education, New York, 1947, 487.

majority of the children tested were known to her before the testing through her work in the two schools used in the study. The task was introduced as a story-telling contest in which prizes would be awarded for the sets of stories which best met with the examiner's requirements. These included a description of events leading to the action depicted, the action itself, what the characters were thinking and feeling, and the outcome. The requirements were explained in language suited to the child before the testing began and listed on a nearby blackboard for reference during the testing. Encouragement, reassurance, and praise were used frequently throughout the testing whether the stories merited such treatment or not. As much time as necessary was permitted the subject. Inquiry was used by the examiner to bring out any aspects of the requirements which the child neglected, to clarify stories in which the subject had created difficulties which he did not spontaneously resolve, and in cases where the subject introduced several possible plots but did not choose one to develop. In cases where the child professed inability to tell a story about a particular picture, the examiner provided as neutral a story beginning as possible for the child. The following example illustrates this approach. The story is in response to Card VI.

Subject: The bear is sleeping on the ground. The other bear is too. That's all.

Examiner: The baby bear wakes up and

Subject: Sees the father bear still sleeping. The little bear is looking at somebody though. He might be looking at a man there. He knows that man ain't supposed to be there. And that man kills the baby with a dagger. But he didn't do nothing to that man... I don't know why he killed that baby. So the

father wakes up and kills that man. He bites the man with his teeth and eats him up cause he's mad cause his baby got killed.

This example serves to illustrate how little material might have been obtained in many instances had not individual administration and an opportunity for inquiry been recognized as necessary.

Analysis of the stories was then undertaken in terms of both content and structure. The plan for analysis as used here represents a combination of Bellak's analysis sheet for the Children's Apperception Test and Kobler's guide to analysis of the Thematic Apperception Test. Modifications and additions were made when the content of the stories or the conclusions of other investigators indicated that particular aspects of the material might be fruitfully investigated. Analysis included characteristics of the hero, his attitudes toward important figures in his world, their attitudes toward him, and objects, figures and external circumstances introduced. (Appendix II, page 58.) Analysis of structure took into account coherence, mood, type of ending, blocking, self-reference, indecision, detail treatment, and the amount of verbalization. (Appendix III, page .) Each of the three-hundred stories was scored once for structure and content variables by the examiner and then rated a week later without reference to the original scoring. Instances of disagreement in the two ratings were carefully considered by the examiner and another psychologist, and doubtful scores were reclassified to indicate their ambiguity. Scores in the various structure and content categories were then tallied for each group and Chi Square applied to determine whether significant differences existed between the two groups.

It was also thought that an interesting insight into the utility of the test for revealing indications of maladjustment aside from formal analysis might be secured by having three clinicians classify each case as adjusted or maladjusted with reference only to the children's stories. The clinicians were told that the stories were those of children with normal intelligence from six to ten years old, and asked to divide the group of thirty cases into two groups of fifteen each, one representing adjusted and another maladjusted cases. Using Chi Square, the judgments of the three clinicians were tested for significance.

The test materials consist of ten pictures of animals engaged in various types of human-like activity. A brief description of each of the test pictures follows. The pictures are in black and white tones.

- I Three chicks are seated at a table on which there is a large bowl of food. A large chicken, dimly outlined, appears at one side of the card.
- II One bear is pulling a rope on one side while another large bear and a baby bear pull on the other side.
- III A lion with pipe and cane is sitting in a large chair. A mouse peeps out from a hole in the lower right corner of the card.
- IV A kangaroo with a bonnet on its head is carrying a basket with a milk bottle. One baby kangaroo is in her pouch, and another is riding a bicycle beside her.
- V This is a darkened room in which there is a crib with two baby bears in it. In the background there is a large bed.
- VI This is a darkened cave with two bear figures in the background and a baby bear lying in the foreground.
- VII A tiger with bared fangs is leaping at a monkey which is leaping toward a nearby tree.

VIII One adult monkey is talking to a baby monkey at one side of the card. Seated nearby are two other adult monkeys drinking from tea cups.

IX In a darkened room, a baby rabbit sits up in bed and looks toward the open door.

X A baby dog is lying across the knees of an adult dog. They are in a bathroom.

There is as yet no material available on the reliability or validity of the test. Several normative studies of various age groups are reported by Bellak³ to be in progress at this time. Work is being done with the original test as published and with a supplement test which the Bellaks have recently prepared but which is not as yet published. The supplement, as it is being used now, consists of nine irregularly cut pictures in color. These include one card showing a bandaged kangaroo and another showing a rabbit doctor to bring out concerns about illness, and a classroom scene to bring out school problems. Other cards in the supplement include foxes in a race and animals in a play scene to elicit more about social and play situations. Bellak proposes that the supplement be used when the regular Children's Apperception Test has been administered and the child has specific problems which would be more completely revealed by the use of additional cards related to the particular problem, or when a very negativistic or fearful child has been unable to give any stories to the regular cards.

3 R. R. Holt, "TAT Newsletter," J. of Projective Techniques, XV 536-539.

CHAPTER IV

FINDINGS AND INTERPRETATIONS

In analyzing the structure of the responses to each card, the stories were classified as to coherence or incoherence, the mood or prevailing tone of the story, the nature of the ending, and the presence or absence of blocking and indecision. Reference to self, detail treatment, and the number of words in each story were also noted as well as the cards on which these variables occurred. A factual presentation of the data in each of the structure categories and the statistical treatment will be presented first, followed by discussion and interpretation of the data in its entirety.

Three instances of incoherence were found in the records of the well adjusted group and twenty-four incoherent stories were noted in the maladjusted group. Using a 2×2 fold table to determine the significance of the difference in these frequencies, Chi Square was found to be 16.278 which is significant well beyond the .01 level.¹ In the adjusted group, the incoherent stories appeared in response to Cards III and IX. On the other hand, all cards except II and X gave rise to incoherent stories in the maladjusted group with more than half of these (58.3 per cent) appearing in response to Cards

¹ In all instances in this study where Chi Square is used, the Yate's Correction for Continuity advised for use with small samples is employed.

IV, VIII, and IX.

An analysis of the mood of each story was undertaken in terms of whether the predominating tone of the story was happy, depressed or neutral. In the adjusted group, 25.3 per cent of the stories were rated as happy in tone, 34.7 per cent as depressed, and 40 per cent as neutral. The maladjusted group produced 10.7 per cent happy stories, 62 per cent rated as unhappy, and 27.3 per cent classified as neutral. Using a 3×2 table to test the significance, Chi Square was found to be 22.406 which is significant well beyond the .01 level. Responses to Card I were most frequently happy in tone for both groups. Responses to Card III were most frequently depressed in mood for the adjusted group and stories in response to Card X most frequently depressed in mood for the maladjusted group.

The nature of the story ending was next considered in the analysis of structure variables. Here each story ending was classified as being happy, unhappy, or neutral. In the adjusted group, 53.3 per cent of the story endings were rated as happy, 22.7 per cent as unhappy, and 24 per cent as neutral. Story endings in the maladjusted group included 42.7 per cent classified as happy, 41.3 per cent rated as unhappy and 16.0 per cent classified as neutral. Using a 3×2 table to determine the significance of the difference in these frequencies, Chi Square was found to be 11.170 which is significant beyond the .01 level. Perusal of the story endings in terms of the frequencies for each card indicates that the adjusted group most frequently ended stories to Card I happily, and stories to Cards VIII and X unhappily. In the maladjusted group, stories in response to Cards I and VII most frequently ended happily, and stories in response to Cards II and X most

frequently ended unhappily.

Blocking in response to presentation of a card occurred three times in the adjusted group and sixteen times in the maladjusted group. There was no instance of card refusal in either group. Using a 2 x 2 table, Chi Square was found to be 8.090 which is significant beyond the .01 level. Two instances of blocking in the adjusted group occurred in response to Card V and one in response to Card III. In the maladjusted group, blocking occurred most frequently on Card I. No instances of blocking were recorded for Cards VII or IX in either group.

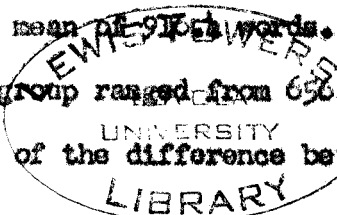
The presence or absence of indecision in the stories was also tabulated for each group. Eight such instances occurred in the adjusted group, and twenty-five in the maladjusted group. Using a 2 x 2 table, Chi Square was found to be 8.714, which is significant beyond the .01 level. The greatest number of stories containing indecision occurred in response to Card VII in the maladjusted group, and in response to Cards II and VII in the adjusted group. There were no instances in which indecision occurred in response to Card IX in either group.

Also noted in the analysis was the child's reference to himself incorporated in the story. Five such instances occurred in the adjusted group and eight in the maladjusted group. Chi Square, in this case, was found to be .318 and thus P lies between the .50 and .70 levels indicating that the slight difference between the groups is not significant in this area. Neither does inspection of the frequency of self-reference for each card reveal material of interest. Instances of self-reference occur in

response to five of the cards in the adjusted group and to four in the maladjusted group.

Unusual treatment of details in the pictures was also noted and categorized as to the nature of the treatment. In the adjusted group, details were treated in unusual fashion in ten stories. In the maladjusted group, twenty-eight such instances occurred. Using a 2×2 fold table to determine the significance of the difference between these frequencies, Chi Square was found to be 8.706 which is significant beyond the .01 level. In the adjusted group, 60.0 per cent of the times unusual treatment was noted it was found that omission of a detail had occurred, and in 40.0 per cent of the cases alternation and/or distortion of the detail was noted. Omission accounted for 28.6 per cent of the total of unusual treatment in the maladjusted group while alteration and/or distortion occurred in 67.8 per cent of the cases. An additional 3.6 per cent included cases in which both alteration and omission occurred. When omission of a detail occurred in either group, 35.0 per cent of the times, the mouse in Card III was omitted. Alteration and/or distortion of details occurred in response to four cards in the adjusted group and to seven cards in the maladjusted group, appearing more frequently in response to Card VIII in this latter group.

The amount of verbalization for each child was also included as part of the structure analysis. The total number of words per child in the adjusted group ranged from 487 to 2528 with a mean of 915.5 words. The total number of words per child in the maladjusted group ranged from 650 to 3912 with a mean of 1634.3 words. The reliability of the difference between means



using Garrett's formula for small samples² was computed and the critical ratio found to be .399 which indicates that our difference here is not significant. This is no doubt a function of the wide range in each group and the considerable overlap in the two distributions. An analysis of words per card proved more fruitful, however. Table I presents the average number of words given in response to each card for the two groups. These are presented in the table in rank order for each group. It will be noted that Card VIII is most productive in terms of verbalization for both groups with Card IX ranking second for both groups. It is also apparent that Card I is least productive and Card II ranks ninth in terms of the amount of verbalization in each of the groups. A further treatment of the data in regard to verbalization compared the productivity on cards depicting action and those which were static in nature. Cards I, II, IV, VII, VIII and X were classified as action cards and the mean number of words secured in response to these cards was found to be 3557. Cards III, V, VI and IX, classified as static cards, had a mean number of words of 4230. The significance of the difference between these means was calculated according to the formula for small samples and a critical ratio of .306 found. In this instance, P lies beyond the .50 level of confidence and is clearly not significant.

In summary of the analysis of structure variables, the groups differ significantly from one another in coherence, mood, nature of the story

2 Henry E. Garrett, Statistics in Psychology and Education, Third Edition, New York, 1947, 206.

TABLE I
AVERAGE NUMBER OF WORDS PER CARD ARRANGED IN RANK ORDER
FOR ADJUSTED AND MALADJUSTED GROUPS

Card Number	Adjusted Group	Card Number	Maladjusted Group
VIII	127.5	VIII	258.6
IX	118.0	IX	206.3
III	92.7	V	199.1
VI	92.0	VII	176.4
V	91.7	VI	167.4
IV	91.3	III	160.7
X	87.0	IV	151.0
VII	86.3	X	130.0
II	74.4	II	99.1
I	55.3	I	85.5

ending, treatment of detail, blocking and indecision. Such differences in coherence and indecision probably reflect to some degree the influence of the emotions upon intellectual functioning. In neither case does the incidence of these factors appear to be a function of qualities inherent in the cards themselves. For example, indecision occurs on all but one card and incoherence on all but two cards. Only on one card does indecision seem specifically related to the card content; apparently posing a specific and

unmistakable conflict on Card VII contributed to some small degree to the indecisive quality of a number of stories in response to this card.

On the other hand, the nature of the card itself appears to have been influential in several other areas. For example, Card X which pictures a large dog spanking a smaller one produced the greatest number of stories depressed in mood in the maladjusted group, and the largest number of stories ending unhappily in both groups. Apparently the suggestion of punishment on this particular card operates to produce stories which are depressed in mood and which end unhappily. Similarly, the largest number of omissions of detail occurred in response to Card III in both groups. The author sees no reason to conclude from the evidence here that these are deliberate omissions dynamically related to Bellak's proposed illumination of the father-child relationship on this card, but wonders instead if the mouse pictured is not merely too small to attract the young child's attention. As Amen³ notes, there is only a gradual development of the capacity to enlarge on the primitive unanalyzed whole perceived and to increase the amount of detail noted and interpreted. On the other hand, alteration and distortion of detail appears to occur without relation to the particular card presented. The greater frequency with which these occur in the maladjusted group, however, is in agreement with the reports issued by other investigators.⁴

³ Elizabeth W. Amen, "Individual Differences in Apperceptive Reaction," Genetic Psychology Monograph, XXIII, 319-385.

⁴ Sarah Schafer and Mary Leitch, "An Exploratory Study of the Usefulness of a Battery of Psychological Tests with Nursery School Children," American J. of Psychiatry, CIV, 647-652.

It is interesting to note also that no card refusal occurred in either of the groups. This is probably related to the game context in which the test was presented and the praise and reassurance provided during the testing as well as to the nature of the test itself. As Bills pointed out in his use of a series of animal pictures, both blocking and card refusal were observed to lesser degree in response to the animal cards than to cards picturing humans.⁵ Blocking in both samples occurred most frequently in response to Card I, probably as a result of its serial position rather than as a consequence of the material in the card. Since Card I is also noted, in company with Card II, to be least productive in terms of the amount of verbalization, the effect of preliminary cards as used in Rorschach testing of children might well be noted in another study. The fact that Cards VIII and IX produce the greatest amount of verbalization in both the groups may also be a function of serial position and could similarly be subjected to further study.

The findings also indicated that there was no significant difference between the two groups in the amount of verbalization secured in response to the cards. This is in contrast to the results published by Cox and Sargent⁶ who found significantly shorter stories in the maladjusted group;

⁵ Robert Bills, "Animal Pictures for Obtaining Children's Projections," J. of Clinical Psychology, VI, 291-293.

⁶ Beverly Cox and Helen Sargent, "TAT Responses of Emotionally Disturbed and Emotionally Stable Children," J. of Projective Techniques, XIV, 61-73.

an observation that had not been made by other investigators. It must be noted, however, that Cox and Sargent presented their pictures projected on a screen and the group of thirty boys were instructed to write their stories in the five-minute period allotted. Under such circumstances, the maladjusted child might well prove to be resistant to the test situation, and the apparent constriction Cox and Sargent observed might well appear.

In the analysis of story content, an attempt was made to investigate the hero's characteristics, attitudes toward parental figures and siblings, attitudes of parents and siblings toward the hero, the nature of the environment in which the child places himself, and the figures, objects or circumstances introduced into the stories. As before, the data in each of these areas will be presented first.

The hero, or figure of identification, in each of the three-hundred stories was determined by the examiner and another psychologist and then each story hero classified in five categories each of which contained four alternatives. First treated was a category in which the hero was classified as to consistent superiority or consistent inferiority in his relations with others, ambivalence between superiority and inferiority, and the absence of either trait. Table II indicates the percentage frequency in each of these areas. N is one-hundred fifty in each group.

Using a 4×2 table, Chi Square was found to be 8.123 and P lies between the .05 and .02 levels of confidence. Inspection of the table indicates that the maladjusted group tends to picture itself as inferior somewhat more frequently than the adjusted group and is ambivalent between superiority and inferiority more frequently.

THE NUMBER AND PERCENTAGE OF HEROES CLASSIFIED
AS SUPERIOR AND/OR INFERIOR IN THE STORIES
OF ADJUSTED AND MALADJUSTED CHILDREN

Hero Characteristics	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Superior	27	18.0	29	19.3
Inferior	40	26.7	49	32.7
Ambivalent	7	4.6	18	13.0
Neither	76	50.7	54	36.0
Totals	150	100.0	150	100.0

A similar analysis of the adequacy or inadequacy of each story hero was next undertaken. Table III presents the percentage frequency in each of the four classifications used here. N is again one-hundred fifty in each group.

Using a 4×2 table, Chi Square was found to be 6.882 and P lies slightly above the .10 level of confidence. The slight differences which exist here are clearly not significant, and it is apparent that both groups tend to identify as frequently with characters portrayed as adequate as with those pictured as inadequate.

Heroes in each story were also classified as to whether they were accepted or rejected by other figures in the stories. Table IV presents the frequency percentage in each of these areas.

TABLE III

40

THE NUMBER AND PERCENTAGE OF HEROES CLASSIFIED AS ADEQUATE
AND/OR INADEQUATE IN THE STORIES OF ADJUSTED
AND MALADJUSTED CHILDREN

Hero Characteristics	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Adequate	48	32.0	43	28.6
Inadequate	40	26.7	52	34.7
Ambivalent	6	4.0	15	10.0
Neither	56	37.3	40	26.7
Totals	150	100.0	150	100.0

TABLE IV

THE NUMBER AND PERCENTAGE OF HEROES CLASSIFIED AS ACCEPTED
AND/OR REJECTED IN THE STORIES OF ADJUSTED
AND MALADJUSTED CHILDREN

Hero Characteristics	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Accepted	83	55.3	52	34.7
Rejected	35	23.3	49	32.7
Ambivalent	9	6.0	30	20.0
Neither	23	15.4	19	12.6
Totals	150	100.0	150	100.0

Again using a 4 x 2 table, Chi Square was determined to be 19.146 which is significant well beyond the .01 level of confidence. Inspection of the table reveals that the maladjusted group tends to identify with heroes portrayed as accepted by those in the environment less frequently than the adjusted group. The maladjusted group also tends to picture its heroes as rejected more frequently than the adjusted group, and reflects more feelings of ambivalence in regard to acceptance or rejection by others in the environment.

A further classification of the story heroes in terms of tendencies toward submission or aggression in conflict situations was also attempted. Here the maladjusted group tends more frequently to identify with characters portrayed as aggressive toward others in the environment and less frequently with characters pictured as submissive. In this instance, Chi Square was found to be 17.450 which is significant well beyond the .01 level of confidence. Table V indicates the frequency percentage in each of these areas.

TABLE V

THE NUMBER AND PERCENTAGE OF HEROES CLASSIFIED AS SUBMISSIVE
AND/OR AGGRESSIVE IN THE STORIES OF ADJUSTED AND
MALADJUSTED CHILDREN

Hero Characteristics	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Submissive	13	8.7	4	2.6
Aggressive	26	17.3	58	38.6
Ambivalent	8	5.3	5	3.3
Neither	103	68.7	83	55.5
Totals	150	100.0	150	100.0

A last classification of hero characteristics attempted to tap emotional expression in the stories. As can be seen in Table VI, both groups are similar in their frequent expression of emotion or complete absence of emotion. Chi Square in this case was found to be .886 and P lies between the .70 and .50 levels of confidence.

Also of interest was the hero's attitudes toward parental figures and siblings. These were classified as indicated in the content analysis sheet (Appendix II, Page 64) and then in each instance grouped into one of three categories, defined as including wholesome, antagonistic, and indifferent attitudes. Table VII presents in summary form the frequency percentage in each of these categories.

TABLE VI
THE NUMBER AND PERCENTAGE OF HEROES CLASSIFIED AS EMOTIONAL
AND/OR INDIFFERENT IN THE STORIES OF ADJUSTED
AND MALADJUSTED CHILDREN

Hero Characteristics	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Emotional	73	48.7	66	44.0
Indifferent	2	1.3	5	3.3
Ambivalent	0	0.0	0	0.0
Neither	75	50.0	79	52.7
Totals	150	100.0	150	100.0

TABLE VII

HERO ATTITUDES TOWARD PARENTAL FIGURES AND SIBLINGS IN THE
STORIES OF ADJUSTED AND MALADJUSTED CHILDREN

Attitudes	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Attitudes toward Father				
Wholesome	34	44.1	30	34.5
Antagonistic	19	24.7	34	39.0
Indifferent	24	31.2	23	26.5
Totals	77	100.0	87	100.0
Attitudes toward Mother	Number	Percentage	Number	Percentage
Wholesome	71	63.4	47	45.2
Antagonistic	26	23.2	37	35.6
Indifferent	15	13.4	20	19.2
Totals	112	100.0	104	100.0
Attitudes toward Siblings	Number	Percentage	Number	Percentage
Wholesome	27	56.2	26	53.0
Antagonistic	0	0.0	4	8.2
Indifferent	21	43.8	19	38.8
Totals	48	100.0	49	100.0

Attitudes toward the father, the table indicates, differ little from group to group. Chi Square in this case was 3.098 and P lies between the .30 and .20 levels of confidence. Both groups, it is seen, frequently express antagonistic attitudes toward the father. In a statistical treatment of attitudes toward the mother, we find a Chi Square of 6.151 in which case P lies between the .05 and .02 levels of confidence. Antagonistic attitudes are here more frequently pictured by the maladjusted group, and wholesome attitudes less frequently than in the adjusted group. Statistical treatment of attitudes toward siblings yields a Chi Square of 2.312 which is clearly not significant.

Similarly, parental and sibling attitudes toward the hero proved lacking in significant differences between the two groups. Attitudes were classified here as representing benign, threatening, or neutral influences to the hero. Table VIII presents the data found in terms of the percentage of frequency in each category. Statistical treatment of this data yields a Chi Square of 2.967 for the father's attitude toward the child, a Chi Square of 5.313 for the mother's attitudes, and a Chi Square of .264 for the siblings' attitudes. None of these represent significant differences between the groups.

The environment, as portrayed in each story, was also classified as to whether it represented a benign, threatening or neutral influence upon the child. In each group, 10.0 per cent of the stories included as environment which was pictured as benign. On the other hand, 17.3 per cent of the adjusted group included a threatening environment and 44.0 per cent of the

TABLE VIII

ATTITUDES OF PARENTAL AND SIBLING FIGURES TOWARD THE HERO
IN THE STORIES OF ADJUSTED AND MALADJUSTED CHILDREN

Attitudes	Adjusted Group		Maladjusted Group	
	Number	Percentage	Number	Percentage
Father's Attitudes				
Benign	33	42.9	32	37.2
Threatening	18	23.4	32	37.2
Neutral	26	33.7	22	25.6
Totals	77	100.0	86	100.0
Mother's Attitudes	Number	Percentage	Number	Percentage
Benign	62	55.4	42	40.8
Threatening	21	18.7	33	32.0
Neutral	29	25.9	28	27.2
Totals	112	100.0	103	100.0
Siblings' Attitudes	Number	Percentage	Number	Percentage
Benign	14	29.2	14	29.2
Threatening	1	2.1	3	6.2
Neutral	33	68.7	31	64.6
Totals	48	100.0	48	100.0

maladjusted group did so. Neutral environments occurred in 72.7 per cent of the adjusted group's stories and in 46.0 per cent of the maladjusted group's stories. Using a 3×2 table, Chi Square was found to be 25.076 which is significant well beyond the .01 level of confidence.

A tabulation of figures, objects, and circumstances introduced into the children's stories was next undertaken. (Appendix II, page 64). Tabulated first was the number of times a punisher appeared in the stories of each group. In the adjusted group a punisher was introduced thirty-three times, while in the maladjusted group, a punisher appeared seventy times. The significance of the difference between these frequencies was tested by Chi Square which proved to be 12.582. This is significant well beyond the .01 level of confidence. In the adjusted group, it was the hero who was punished 66.6 per cent of the time and in the maladjusted group, 54.3 per cent of the time. The mother and father figures account for 72.7 per cent of the punishment meted out in the adjusted group with the hero picturing himself as the punisher in only 9.1 per cent of the instances. In the maladjusted group, however, the parental figures are the punishers in only 57.1 per cent of the cases, and the hero administers punishment 20.0 per cent of the time.

The introduction of accidents into the stories was also noted in the two groups. There were only three accidents in the stories of the adjusted group as opposed to thirty-nine in the stories of the maladjusted group. Using a 2×2 table, Chi Square was found to be 29.16 which is significant well beyond the .01 level of confidence. When accidents occurred in the stories of the maladjusted group, the hero was the victim in 33.3 per cent of the instances. A similarly large difference was noted in the occurrence of

aggression in the stories of the two groups. There were sixty-five aggressive acts in the stories of the adjusted group and one hundred and fifty-eight aggressive acts in the stories of the maladjusted group. Chi Square was found to be 37.94, and P lies very much beyond the .01 level of confidence. In 20.2 per cent of these instances of aggression in the maladjusted group, the hero was portrayed as the aggressor, and in 43.6 per cent of the instances, the aggression was directed against him. The adjusted group portrays the hero as aggressor in 26.1 per cent of the instances and as the figure against whom the aggression is directed 60.0 per cent of the time.

The number of times a friend to the hero was introduced was also tabulated, and eleven instances found in the adjusted group. The maladjusted group introduced twenty-four friends into their stories. Chi Square, in this case, was found to be 4.10 and P lies between the .05 and .02 levels of confidence. The introduction of a benefactor was also noted and thirty-six instances tallied in the adjusted group. The frequency in the maladjusted group was thirty-four. Using a 2×2 table, Chi Square was found to be .0142, with P lying between the 0.95 and 0.90 levels, indicating that the slight difference here is clearly not significant.

Deprivation occurred fifty-one times in the stories of the adjusted group and sixty-eight times in the maladjusted group's stories. Chi Square in this case is 2.150 and P lies between the 0.20 and 0.10 levels of confidence. Also lacking in significance is the difference between the frequency with which food was brought into the stories of the two groups. The tabulation for the adjusted group indicated that food and eating had been introduced forty-seven times in their stories, while it had occurred fifty-one times in

the maladjusted group. Chi Square here is .090 indicating that the slight difference in frequencies is clearly not significant.

Death occurred twenty-two times in the stories of the adjusted group and sixty-eight times in the maladjusted group's stories. Using Chi Square to determine the significance of the difference between these frequencies, Chi Square was found to be 22.50 which is significant well beyond the .01 level of confidence. The hero was pictured as dying in 31.0 per cent of the cases in the adjusted group and in 29.4 per cent of the instances in the maladjusted group. An analysis of the kinds of death which occurred indicates that neither group chooses accidental or natural death frequently. In the adjusted group, 95.4 per cent of the instances were those in which death was inflicted intentionally by another. In the maladjusted group, this was true in 75.0 per cent of the cases. It was also noted in connection with death that weapons were employed five times in the adjusted group's stories and nineteen times in the stories of the maladjusted group. Chi Square, in this case, was 7.040 which is significant at the .01 level of confidence.

Also tabulated were instances in which a pursuer or an enemy was introduced into the story content. The presence of an enemy was found thirty-six times in the stories of the adjusted group, and eighty-four times in the maladjusted group's stories. Using a 2 x 2 table, Chi Square was found to be 18.40 which is significant well beyond the .01 level of confidence. Similarly, a difference was noted in the number of times a pursuer was introduced. Chi Square, in this case, was 5.094 and P lies between the .05 and .02 levels of confidence.

The occurrence of circumstances such as injustice and deception was also noted, and significant differences in the two groups observed. There were sixteen cases in which deception occurred in the stories of the adjusted group, and fifty-two instances in the stories of the maladjusted group. A Chi Square of 18.014 indicates that this difference between the groups is significant beyond the .01 level of confidence. Similarly, a Chi Square of 6.034 was found in a comparison of the occurrence of injustice in the two groups. P in this case lies between the .02 and .01 levels of confidence. The occurrence of stealing was also noted and five instances found in the adjusted group's stories in comparison with eighteen in the stories of the maladjusted group. Chi Square here is 6.260 and P lies between the .02 and .01 levels of confidence.

Finally, acts of violence in the stories of the two groups were tabulated and the significance of these differences determined by Chi Square. Only sixteen instances in which violence occurred were found in the stories of the adjusted group in comparison with eighty-four acts of violence in the stories of the maladjusted group. Chi Square here is 44.890 which is significant very much beyond the .01 level of confidence.

One further treatment of the data was then made. It was felt that if significant differences between the stories of the two groups existed, these should be apparent no matter what the analytical approach, and a form of blind analysis was undertaken. Three clinicians were asked to distinguish well-adjusted from maladjusted cases with reference to the stories alone. No formal analysis of the stories was made by the clinicians; merely a judgment as to whether the stories indicated good or poor adjustment. Comparison of

their judgments with the original groups was then made, and Chi Square found to be 10.666 which is significant beyond the .01 level of confidence. Table XI presents in summary form the significance levels for all the data analyzed in relation to story structure, and Table X presents the significance levels for all content data.

TABLE IX

SUMMARY OF THE LEVELS OF SIGNIFICANCE OBTAINED FOR STRUCTURE

DATE IN THE STORIES OF FIFTEEN ADJUSTED AND FIFTEEN

MALADJUSTED CHILDREN

Structure Variables	Levels of Significance			
	Not Significant	.05	.02	.01
Coherence	..	..	..	X
Mood	..	..	..	X
Nature of Ending	..	..	..	X
Blocking	..	..	..	X
Indecision	..	..	..	X
Self-reference	X	..	..	..
Detail Treatment	..	..	..	X
Amount of Verbalization	X	..	..	..
Verbalization on Action and Static Cards	X	..	..	..

Reference to the tables indicates that the fantasy of the maladjusted child differs in many important respects from that of the adjusted child. It is apparent that the maladjusted child tends to identify more frequently with characters portrayed as rejected, inferior and aggressive. To what extent the child reflects his reality situation here can only be a matter for conjecture in this study since no attempt was made to assess the individual child's social and environmental climate, and we are thus in no

TABLE X
A SUMMARY OF THE LEVELS OF SIGNIFICANCE
OBTAINED FOR CONTENT DATA

Data Analyzed		Level of Significance		
Hero Characteristics	Not Significant	.05	.02	.01
Superiority	..	X	..	..
Adequacy	X	..	..	..
Rejection	..	..	..	X
Agression	..	..	..	X
Emotionality	X	..	..	..
Hero Attitudes				
Toward father	X	..	..	..
Toward mother	..	X	..	..
Toward siblings	X	..	..	..
Attitudes toward Hero				
Father's attitude	X	..	..	..
Mother's attitude	X	..	..	..
Sibling's attitudes	X	..	..	..
Nature of Environment				
Objects, Figures and Circumstances Introduced				
Punisher	..	..	..	X
Friend	..	X	..	..
Accident	..	..	..	X
Aggression	..	..	..	X
Deprivation	X	..	..	..
Food	X	..	..	..
Pursurer	..	X	..	..
Enemy	..	..	..	X
Death	..	..	..	X
Injustice	..	..	X	..
Weapons	..	..	..	X
Benefactor	X	..	..	..
Violence	..	..	..	X
Deception	..	..	..	X
Stealing	..	X	..	..

position to assign cause or effect relationship to these behavior manifestations. It appears, however, that we may be dealing here with the oft-mentioned "vicious circle" in which the child's feelings of inferiority and rejection lead him to the use of defensive measures of aggressive nature which in turn leads to further rejecting behavior on the part of authority and peer figures. That the child's futile attempts to deal with frustration in a conflict situation by aggressive behavior will tend to arouse anger and resentment on the part of others has often been observed in home, school and social situations.

That the child is himself unhappy in his maladjusted state is indicated in many of the findings. His stories tend to be more frequently depressed in mood, to end more unhappily, and contain more frequent reference to a threatening environment as well as enemies, death, punishment and injustice than do the stories of the adjusted child. Again whether we are dealing with a portrayal of reality, or merely the child's concept of reality, we cannot help but conclude that the maladjusted child is an unhappy child.

In his attitudes toward parental figures and siblings, the maladjusted child's fantasies are not very unlike those of the adjusted child. Although frequently expressing antagonistic attitudes toward the father, he often pictures a wholesome relationship between the two. Similarly, there is little evidence of sibling conflict in his stories. He is, however, frequently antagonistic toward the mother, and expresses resistance and aggression more often than the adjusted child in his fantasies. Since this resistance and aggression is frequently associated with anticipated or

immediate punishment for misdeeds, the antagonistic attitude toward the mother may be a part of general resistance to socialization directed toward the primary socializing agent in the home. On the other hand, an antagonistic attitude toward the mother may reflect the child's response to real or fancied rejection on her part.

In general, the maladjusted child tends to view his world as threatening to him. This attitude is not reflected in his portrayal of parental or sibling attitudes toward him, but occurs in his repeated introduction of punishment, death, accidents, enemies and violence against a melancholy backdrop of depression, tragedy, rejection, and inferiority. In his fantasies, he reacts to these threats with vigorous rebellion and attempts to dispel them with aggressive behavior. He introduces injustice, deception, stealing and weapons to deal with them and aggressive acts, violence, and death are directed toward those with whom he is in conflict. His general approach in fantasy suggests that he is constantly on the defensive against a world in which he is inferior and rejected and from which he expects no compassion.

CHAPTER V

SUMMARY AND CONCLUSIONS

The Children's Apperception Test was administered to fifteen children classified as behavior problems in the school situation and to fifteen children classified as well adjusted in school to determine what differences existed in the fantasy productions of the two groups. A related purpose was to investigate the possible clinical utility of this new test for understanding, and consequently, for dealing with the maladjusted child. Selection of the two groups was based upon referral to the school psychologist for study as a behavior problem and the incidence of teacher checks on a check list of behavioral manifestations common in the school situation. In order to rule out other factors which might unduly influence results, both groups were chosen within the chronological age range from six to ten, within the IQ range from ninety to one-hundred ten, and from a low average socio-economic status. There was no significant difference between the mean chronological age or IQ of either group.

The test was administered individually to each child and presented as a story-telling content. A concealed wire recorder was used to secure the responses which were later analyzed in terms of both structure and content. Each of the three hundred stories was scored for structure and content variables once by the examiner, and then rescored a week later without reference to the initial scoring. Instances of disagreement in the two

ratings were carefully considered by the examiner and another psychologist, and doubtful scorings reclassified to indicate their ambiguity. The frequency of occurrence of these variables in the two groups was then tallied and Chi Square applied to determine the significance of the differences between the groups.

Analysis of structure took into account instances of incoherence, indecision, and self-reference. Significant differences between the two groups were observed in the frequency with which incoherence and indecision occurred. These were found much more frequently in the records of the maladjusted group. The occurrence of reference to self proved to be lacking in significance. The stories were also analyzed in terms of the nature of the ending, the prevailing mood of the story, and the amount of verbalization secured from the two groups. Unusual treatment of details was also noted, and it was found that the maladjusted group omitted, altered, and/or distorted details more frequently than did the adjusted group.

An analysis of hero characteristics revealed that the maladjusted child tends to identify more frequently with characters in his stories pictured as inferior, rejected, and aggressive. There was no significant difference between the groups in the adequacy or emotionality of the hero. Attitudes of the hero toward parental figures and siblings were also classified and the maladjusted group found to differ significantly in attitudes toward the mother. These were more antagonistic in the maladjusted group than in the adjusted group. There were no significant differences between the groups in attitudes toward the father or siblings. Classification of

parental and sibling attitudes toward the hero was also attempted, and it was determined that the groups did not differ significantly from one another in the types of attitudes portrayed.

Classification of the environment as to its benign, threatening, or neutral influence upon the hero was also attempted. In this case, the maladjusted group differed significantly from the adjusted group in picturing the environment as threatening more frequently. In the introduction of objects, figures, and circumstances into the child's stories, significant differences appeared in the greater occurrence in the maladjusted group of punishment, death, violence, accidents, aggression, friends and enemies. Injustice, deception, stealing, pursuers and weapons were also introduced more frequently in the maladjusted group. There was no significant difference in the frequency with which food, deprivation or benefactors were introduced. In addition, three clinicians were able to distinguish satisfactorily between the two groups without reference to the examiner's formal analysis.

That the Children's Apperception Test would be a valuable supplement to the child psychologist's battery of tests seems evident from this description of the areas in which maladjustment may be distinguished from good adjustment in the test responses. While it would in no sense replace other means of investigation, it could be a useful supplement in specific cases and might provide rapidly and economically a good deal of information which could otherwise be difficult and time-consuming to secure. Used with the individual maladjusted child, the test responses could be considered in

terms of the situations in which he feels himself inferior or rejected, and the situations in which he is antagonistic or aggressive toward others in his environment. Other insights might be derived from an examination of the figures by whom he is rejected, towards whom he directs his aggression, whom he portrays as enemies, and those with whom he pictures frequent conflict. It must be emphasized, however, that none of the structure or content variables analyzed here can, in any sense, be considered "indicators" of maladjustment since they occur in the records of both groups. It is instead in the frequency and intensity of these story characteristics that we may find evidence of maladjustment.

For the school psychologist, in particular, the test appears to be a valuable instrument for understanding the behavior problem child. The technique, with some modifications, would be useful particularly when teacher cooperation and some degree of parent-child counseling could be provided. Carefully interpreted to teacher and parents, test responses might permit new insights into the child's behavior and provide the basis for re-oriented teacher-parent attitudes and methods for dealing with the maladjusted child. That there may be a therapeutic effect in the test situation itself is also to be considered. In the actual testing situation, the child is permitted to express his thoughts and feelings freely, hostile or aggressive as they may be, without fear of punishment or ridicule. Child counseling sessions might similarly be oriented around story content.

The lack of pictures to investigate attitudes toward school, classmates, and playmates must be noted, however. When the amount of time a child spends in school is considered, it is apparent that maladjustment can

conceivably originate in this setting, or can be considerably aggravated in the school situation. Apparently the supplement in preparation is an attempt to correct this oversight and to provide a greater number of pictures from which the psychologist can choose when particular areas of anxiety or conflict are suspected in a specific case.

In terms of its research value, the Children's Apperception Test seems a worthwhile addition to the ever-growing list of productive projective methods. The test seems well suited to much needed longitudinal research on child development as well as more specific investigation of the dynamics of child life. Most essential in these early stages of research with the new test are normative studies, as well as investigations of the reliability and validity of the test.

BIBLIOGRAPHY

I. PRIMARY SOURCES

- Amen, Elizabeth W., "Individual Differences in Apperceptive Reactions," Genetic Psychology Monographs, XXIII, May, 1941, 319-385.
- Baker, Harry J. and Traphagen, Virginia, The Diagnosis and Treatment of Behavior Problem Children, New York, 1937.
- Balken, Eva R. and Van der Veer, Adrian, "The Clinical Application of a Test of Imagination to Neurotic Children," American Journal of Orthopsychiatry, XII, January, 1942, 68-80.
- Balken, Eva R. and Van Der Veer, Adrian, "The Clinical Application of the Thematic Apperception Test to Neurotic Children," American Journal of Orthopsychiatry, XIV, July, 1944, 421-440.
- Bell, John Elderkin, Projective Techniques, New York, 1948.
- Bellak, Leopold, "On the Concept of Projection," Psychiatry, VII, November, 1944, 353-370.
- Bellak, Leopold and Sonya, A Manual for the Children's Apperception Test, New York, 1949.
- Bellak, Leopold and Sonya, "An Introductory Note on the Children's Apperception Test," Journal of Projective Techniques, XIV, June, 1950, 173-179.
- Cox, Beverly and Sargent, Helen, "Thematic Apperception Test Responses of Emotionally Disturbed and Emotionally Stable Children: Clinical Judgment versus Normative Data," Journal of Projective Techniques, XIV, March, 1950, 61-73.
- Schafer, Sarah and Leitch, Mary, "An Exploratory Study of the Usefulness of a Battery of Psychological Tests with Nursery School Children," American Journal of Psychiatry, CIV, April, 1948, 647-652.

Temple, Rita and Aasen, Elizabeth, "A Study of Anxiety Reactions in Young Children by Means of a Projective Technique," Genetic Psychology Monograph, XXX, November, 1944, 59-111.

II SECONDARY SOURCES

A. BOOKS

- Abt, L. E. and Bellak, Leopold, Projective Psychology, New York, 1950.
- Garrett, Henry E., Statistics in Psychology and Education, 3rd Edition, New York, 1947.
- Griffiths, R., A Study of Imagination in Early Childhood, London, 1935.
- Murray, Henry A., Thematic Apperception Test Manual, New York, 1943.
- Murray, Henry A., Explorations in Personality, New York, 1938.
- Wickman, E. Koster, Children's Behavior and Teachers' Attitudes, New York, 1928.

B. ARTICLES

- Bellak, Leopold, "A Note on Some Basic Concepts of Psychotherapy," Journal of Nervous and Mental Disorders, CVIII, August, 1948, 137-144.
- Bellak, Leopold, Levinger, Leah and Lipsky, Esther, "An Adolescent Problem Reflected in the Thematic Apperception Test," Journal of Clinical Psychology, VI, July, 1950, 295-97.
- Hills, Robert, "Animal Pictures for Obtaining Children's Projections," Journal of Clinical Psychology, VI, July, 1950, 291-293.
- Hills, Robert, Leiman, Charles and Thomas, Richard, "A Study of the Validity of the Thematic Apperception Test and a Set of Animal Pictures," Journal of Clinical Psychology, VI, July, 1950, 293-295.
- Broida, Daniel, Iazard, Carroll and Cruickshank, William, "Thematic Apperception Test Reactions of Crippled Children," Journal of Clinical Psychology, VI, July, 1950, 243-248.
- Christenson, J. A., "Clinical Application of the Thematic Apperception Test," Journal of Abnormal and Social Psychology, XXXVIII, January, 1943, 104-107.

- Combs, A. W., "A Method of Analysis for the Thematic Apperception Test and Autobiography," Journal of Clinical Psychology, II, April, 1946, 167-174.
- Des Laurier, A. and Halperin, Florence, "Psychological Tests in Childhood Schizophrenia," American Journal of Orthopsychiatry, XVII, January, 1947, 57-67.
- Harrison, R. and Rotter, J.B., "A Note on the Reliability of the Thematic Apperception Test," Journal of Abnormal and Social Psychology, XXX, January, 1945, 97-99.
- Holt, R. R., "TAT Newsletter," Journal of Projective Techniques, XV, December, 1951, 536-539.
- Horowitz, R. E., "A Pictorial Method for the Study of Self-Identification in Pre-School Children," Journal of Genetic Psychology, LXII, March, 1943, 135-148.
- Horowitz, R. E., and Murphy, L. B., "Projective Methods in the Psychological Study of Children," Journal of Experimental Education, VII, March, 1938, 133-140.
- Leitch, Mary and Schafer, Sarah, "A Study of the TAT in Psychotic Children," American Journal of Orthopsychiatry, April, 1947, XVII, 337-42.
- Murphy, L. "Appraisal of Child Personality," Journal of Consulting Psychology, January, 1948, XII, 16-20.
- Saxe, Carl H., "Quantitative Comparison of Psychodiagnostic Formulations from the Thematic Apperception Test and Therapeutic Contacts," Journal of Consulting Psychology, XIV, April, 1950, 116-127.
- Schilder, P. and Wechsler, D., "Attitudes of Children toward Death," Journal Genetic Psychology, XXXIV, December, 1934, 406-451.
- Symonds, P. M., "Criteria for the Selection of Pictures for the Investigation of Adolescent Phantasy," Journal of Abnormal and Social Psychology, XXXIV, July, 1939, 271-274.
- Symonds, P. M., "Inventory of Themes in Adolescent Phantasy," American Journal of Orthopsychiatry, XV, April, 1945, 318-28.
- Vernon, M. D., "The Relation of Cognition and Fantasy in Children," Part One, British Journal of Psychology, XXX, April, 1940, 273-294.
- Vernon, M. D., "The Relation of Cognition and Fantasy in Children," Part Two, British Journal of Psychology, XXXI, July, 1940, 1-21.
- White, R. W., "Interpretation of Imaginative Productions," in Hunt, J. McV., Personality and the Behavior Disorders, New York, 1944.

APPENDIX I

BEHAVIOR PROBLEM CHECK LIST

Type of Problem	Incidence	
	Occasional	Habitual
Meddlesome		
Sullen, sulky.		
Domineering.		
Slovenly appearance.		
Suggestible.		
Overactive		
Fearful.		
Physical coward.		
Nervous.		
Wilfully disobedient		
Destroying property.		
Cheating		
Unhappy, depressed		
Quarrelsome.		
Stubborn in group.		
Rude, impudent		
Impertinent, defiant		
Oversensitive.		
Carrying grudges		
Stealing articles.		
Sissy (tomboy)		
Temper outbursts		
Truancy.		
Neglectful		
Obscene talk		
Obscene notes, etc..		
Profanity.		
Physically lazy.		
Whispering		
Inattentive.		
Careless in work		
Tattling		
Disorderly in class.		
Lying, untruthful.		
Interrupting		
Failure to study		
Shy, withdrawing		
Daydreaming.		
Lack of interest		

APPENDIX I (CONTINUED)

BEHAVIOR PROBLEM CHECK LIST

Type of Problem	Incidence Occasional or Habitual	
Unnecessary tardiness		
Acting "smart"		
Overcritical		
Imaginative tales		

APPENDIX II

CONTENT ANALYSIS

1. Hero Characteristics

Superior	Adequate	Accepted
Inferior	Inadequate	Rejected
Ambivalent	Ambivalent	Ambivalent
Neither	Neither	Neither
Submissive	Emotional	
Aggressive	Indifferent	
Ambivalent	Ambivalent	
Neither	Neither	

2. Attitudes toward Father

Compliant	Dependent	Respectful
Resistant	Aggressive	Obedient
Grateful	Demanding	Disobedient
		<u>SUMMARY</u>
Devoted	Cooperative	Wholesome
Passive	Indifferent	Antagonistic
Competitive	Other	Indifferent

3. Attitudes toward Mother

Compliant	Dependent	Respectful
Resistant	Aggressive	Obedient
Grateful	Demanding	Disobedient
		<u>SUMMARY</u>
Devoted	Cooperative	Wholesome
Passive	Indifferent	Antagonistic
Competitive	Other	Indifferent

4. Attitudes toward Siblings

Wholesome	Antagonistic	Indifferent
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5. Father's Attitude toward Hero

Benign	Threatening	Neutral
--------	-------------	---------

6. Mother's Attitude toward Hero

Benign	Threatening	Neutral
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APPENDIX II (CONTINUED)

CONTENT ANALYSIS

7. Siblings' Attitudes toward Hero

Benign _____ Threatening _____ Neutral _____

8. Natural Environment seen as

Benign _____ Threatening _____ Neutral _____

9. Figures or Objects or Circumstances Introduced

Punisher _____	Pursuer _____	Benefactor _____
Friend _____	Enemy _____	Violence _____
Accidents _____	Death _____	Deception _____
Aggression _____	Injustice _____	Stealing _____
Deprivation _____	Food _____	Weapons _____

APPENDIX III
STRUCTURE ANALYSIS

Card Number	Coherence Incoherent Coherent	Mood Happy Depressed Neutral	Endings Happy Unhappy Neutral	Blocking and Card Refusal
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Total				

Card Number	Details Omission Alteration Distortion	Indecision Presence Absence	Self-Reference Presence Absence	Words per story
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Total				

APPROVAL SHEET

The thesis submitted by Therese Lorraine De Sousa has been read and approved by three members of the Department of Psychology.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

Date



Signature of Adviser