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Evelyn Harm Headen  
*University of Nebraska at Omaha*

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ROBERTS' APPERCEPTION TEST FOR CHILDREN:  
REFERRED AND NONREFERRED STUDENTS' PROFILES

A Thesis

Presented to the  
Department of Psychology  
and the  
Faculty of the Graduate College  
University of Nebraska

In Partial Fulfillment  
of the Requirements for the Degree  
Specialist in Education  
University of Nebraska at Omaha

by

Evelyn Harm Headen

December 1986

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THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College,  
University of Nebraska, in partial fulfillment of the  
requirements for the degree Specialist in Education,  
University of Nebraska at Omaha.

Committee

<u>Richard L. Wikoff</u> Name	<u>Psychology</u> Department
<u>Norman H. Hamr</u>	<u>Psychology</u>
<u>Thomas C. Lubell</u>	<u>Counseling and Special Education</u>

Richard L. Wikoff  
Chairman

8-29-1986  
Date

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## ABSTRACT

The present study examined a recently published projective test, the Roberts Apperception Test for Children (RATC; McArthur & Roberts, 1982). The subjects were 58 students, grades 1-8, from a midwestern suburban school district. One-half of the students had been referred to the school psychologist for an evaluation, either because of behavioral problems or a suspected learning disability, or for routine three-year reevaluations (as required by law). The second group of students were randomly drawn except for the stipulation that they not have been previously referred for a psychological evaluation. All subjects were given the RATC; in addition, the majority of the referred students had scores available for the Wechsler Intelligence Scale for Children - Revised and for an individually administered achievement test battery. For the nonreferred group of children, California Achievement Test scores were recorded whenever they were available. Analysis of the data showed that referred and nonreferred groups of students differed only in the kinds of resolutions they provided for identified problem situations, with the former group tending to give quick, easy answers (the lowest level of resolution). Nonreferred students gave proportionately more



resolutions to stories. RATC scales may be combined in a global fashion into Adaptive and Clinical scores; contrary to expectation, groups did not differ in their mean scores on this measure. Correlations between the RATC scales and other measures such as IQ and achievement were also examined. The validity of the RATC as a clinical tool was considered. It appears to offer some advantages over similar projective tests which have been used with children, and contributes to a better understanding of a child's emotional status. The findings of this study point to the need to teach problem-solving skills to referred children.

## Chapter I

### Introduction

#### Statement of the Problem

Projective tests of one kind or another have been employed for many years, if "projective" material is understood to mean that which transcends the obvious content of a stimulus. Projective techniques have in common the use of unstructured, ambiguous material which allows the subject relative freedom in responding; they encourage a variety of responses with little subject awareness of the purpose of the test, and interpretation is holistic and multidimensional (Rabin, 1968). Thematic apperception tests form one subset of projective techniques. These typically comprise a series of pictures, for which the subject is asked to provide a story with beginning, middle, and end, as well as a description of what the characters are saying and feeling. The Thematic Apperception Test, or TAT (Murray, 1943) and the Children's Apperception Test, or CAT (Bellak & Bellak, 1949) are two well-known examples. A recently published instrument, the Roberts Apperception Test for Children, or RATC (McArthur & Roberts, 1982) was the focus of this study. In the practice of school psychology, it is often desirable to obtain idiographic as well as nomothetic data. The present research sought to determine whether RATC

profiles would differ between groups of "normal" children and those referred for psychological evaluations through the schools.

### Review of Relevant Literature

Projective tests. Modern projective techniques trace their beginnings to stimuli such as inkblots. The first publication regarding inkblots appeared in Germany in 1857, presaging Rorschach's Psychodiagnostik, which was published in 1921 (Klopfer & Davidson, 1962). In 1895, Binet and Henri suggested using inkblots to investigate visual imagination. Stories told to pictures, a less popular device, was used by Binet and Simon in 1905 as part of their assessment of intellectual development. During that time period, however, personality assessment as such was not attempted. Indeed, personality theory was just beginning to develop in the 1920s in conjunction with psychoanalysis, and with it the field of projective techniques. It was Murray, under whose leadership the Thematic Apperception Test (TAT) was developed, who introduced the term "projective tests" in 1938 (Rabin, 1968).

Projective tests have enjoyed considerable popularity, judging by the number of tests listed in the "Personality" section in the Mental Measurements Yearbook. According to Rabin (1968), the growth of projective measures in the 30s and 40s paralleled the increasing importance of clinical

psychologists, particularly in connection with the war effort. Interest grew in instruments that offered more than purely psychometric information. Frank (1939) observed that we may see individuals as organisms in the world of nature, as members of a group, or in private worlds developed under the impact of experience. It is this private world that clinicians have tried to tap with projective measures. While standardized tests provide information about persons in relation to norms, they do not help in discovering individual characteristics. Furthermore, while people can conceal this information in self-report or inventory types of measures, the indirect approach of projective measures is more likely to provide spontaneous reflections of personality, if only because clients don't know which is the best foot to put forward (Zubin, Eron, & Schumer, 1965).

Rabin (1960) suggests that "externalization" might be a more appropriate term than projection, since the latter refers to a Freudian defense mechanism. As he points out, however, projection may be seen as a continuum; we are interested in the portion which is described as the private world. The clinical aim is to evaluate the total person, including an assessment of ego, ego strength and defenses, assets and liabilities. Rabin feels that the freedom with which a subject can make believe or tell a story (as opposed to factual description) is an index of the ego's freedom

from threat. Other non-pathological aspects of the personality are of interest to the clinician as well - ways of coping with reality, identity, interpersonal relationships, problem-solving style, and so on.

Responses to projective stimuli are determined by three classes of stimuli: the stimulus properties of the test; the background (both physical and psychological) of the test situation; and personality characteristics of the subject (both organismic and acquired) (Murstein, 1968). Underlying projective techniques is the assumption that responses are determined and predictable, rather than accidental. Evaluation further assumes that the protocol is an extensive enough sampling of personality to allow judgments about it; that psychological determinants are basic and general; and that it taps the "durable essence" equally in different subjects. Thus the products of projective techniques may not always predict behavior, but they do help interpret observed behavior (Zubin et al., 1965).

Klopfer (1968) has pointed out that projective techniques are necessary but not sufficient for understanding both individual personality and group characteristics. He suggests a continuum of measures, extending from what is essentially a structured interview (e.g., sentence completion tasks) to thematic types (such as the TAT). Material in the latter is what he calls

"preconscious," in that the subject is not entirely unaware of the material. While he calls for more research on stimulus demand, Klopfer believes that TAT-type tests enable the clinical psychologist to gather information about motivation in a way that is not available through public or self-reports.

Whether or not the information gleaned from projective measures is valid or reliable is still a matter of debate. Neuringer (1968) claims that the array of thematic methods has outstripped the amount of responsible research. The number of methods "is sometimes disconcerting, and when accompanied by meager reliability and validity information, creates a poor impression of the status of projective techniques" (p. 254). He calls for representative standardizing samples, validity research, and extensive normative data from various populations, with constant reevaluations and replications. As it now stands, the efficacy of such tests depends a great deal on the experience and clinical skills of the examiner; on this point virtually all sources agree. Rabin (1960) feels that the proliferation of techniques is not the problem, so much as the lack of their relationship to systematic personality theories. On the other hand, as he points out, these methods are often justified in the long run because, as practical instruments, they stimulate theory.

Zubin et al. (1965) feel that predictive, concurrent, and construct validity have been demonstrated for the TAT, but believe the evidence is not yet in regarding content validity. Klopfer (1968) considers predictive efficiency more valuable as a criterion of validity than concurrence between tests, noting that Rorschach content predicts observable behavior better than formal scoring. The scoring system used also determines the findings to some extent. For example, Bellak (1968) suggested that Witherspoon (1968) failed to find Oedipal conflict in CAT protocols because he didn't code correctly for it. Murstein (1968) found that a subject's self-concept was more important in determining a TAT response than an objective assessment of the possession of the trait (in his experiment, hostility). However, the stimulus properties of the cards outweighed all other determinants; Murstein's moral is that conducting content analysis without considering the stimulus impact is inappropriate.

At the risk of overgeneralizing, it may be safe to say that the issues of reliability and validity have not yet been settled satisfactorily for the empirical psychologist, whereas the clinician isn't much bothered by them in any case. Anastasi (1976), for example, suggests that projective techniques should more appropriately be considered as clinical tools than as psychometric tests.

She refers to them as "wideband" procedures, that is, techniques which yield a wide range of information at the cost of a lowered level of dependability. Similarly, Hertz (1970) reminds us that as objective data have their subjective aspects, the reverse is also true. Individual predispositions interact in a complex manner with the social and situational milieu. She cautions against an overreliance on computerized scoring and other actuarial methods because they do not adequately account for environmental influences, nor allow for clinical experience. Errors may also be introduced in the gathering and manipulation of data. While a clinician's decisions should never be based upon a single piece of data, the results of projective techniques may nevertheless suggest leads for further exploration.

Many investigators have warned about the problems involved in using projective techniques with children. It is necessary to understand normal developmental levels and processes in order to recognize deviant behavior (Magnussen, 1980). Since children are in a fluid state of ego development, some functions may appear age inappropriate compared to others. Age norms mask much unevenness in individuals, and performance may be spread over several age levels (Rabin, 1960). Studies with young children are also subject to differences because of the verbal nature of the



responses (Murstein, 1970). Rabin points out that tests like the CAT require a fairly persistent and continuous set, and that older children, with sturdier ego structures, are more productive and revealing. For very young children, he recommends the least restrictive methods which allow maximum freedom and spontaneity, such as free art, play, and puppetry.

Haworth (1966), tracing developmental trends from a variety of theoretical perspectives ranging from Freud to Piaget, concludes that there is a general progression from a diffuse, global state, through phases of differentiation, to a final complex but smooth integration of the organism. In practice, this means we should expect young children's CAT protocols, for example, to reflect unrelated fantasies or, if they focus on the stimulus, descriptive responses without regard to nuances of thought or feeling. Primary children would be expected to be more creative but with an awareness of reality, while the older child would be put off by the childishness of the pictures.

Children's Apperception Test (CAT). The original purpose of the CAT, which is clearly a derivative of the TAT, was to provide situations more specific to typical childhood problems (Bellak & Bellak, 1959). The test is intended for use with children aged three to ten, of both sexes and all ethnic groups. Animals were chosen for the

original series because it was believed that children would identify more freely with animals; problems of cultural or racial identification were also avoided in this way (although it has been pointed out that the furnishings and details such as pipe and cane are not culture-free).

Bellak (1954) feels that children will be very productive in their stories because they use more symbol projection, and wish fulfillment themes are manifest and readily given. He does warn that, rather than showing the entire character structure, children's themes may reflect transitory problems or developmental stages; what may seem pathological in an adult may be appropriate to a child's stage of development. No normative data is provided, however, beyond a simple checklist of typical responses (Bellak & Adelman, 1960).

A ten-year longitudinal study using the CAT was carried out by Witherspoon (1968) with subjects ranging in age from 2:9 to 6:5 at the beginning of the study. His conclusions, based on the scoring of 268 protocols, were as follows: responses were largely apperceptive, with the frequency of nonapperceptive responses minimal by age eight; sex differences were virtually non-existent, except possibly at ages 3 and 4; judged by frequency and intensity, the dynamics of parent identification, aggression, and orality were best explored by the CAT; fears, sibling rivalry,

Oedipal concerns, toileting and cleanliness, and sexuality were relatively infrequent responses. Witherspoon also cited a study by Rosenblatt (1958), in which 400 stories of children aged 3 to 10 were examined from a psychoanalytical point of view. Few uniform age trends were found, and statistically significant differences were a function of a card's stimulus value.

Another study led to the conclusion that needs with the greatest frequency and intensity had an inverse relationship to the rank order of manifest needs as determined by teacher questionnaires (Sanford, 1943). Although this research predates the CAT, the results are suggestive for apperception tests in general. (Sixty different stimulus cards were used, from the series used at the Harvard Psychological Clinic.) The needs most freely expressed in fantasy were those least frequently shown in overt behavior, namely aggression, acquisition, and autonomy. The author suggests that perhaps these were the needs most commonly inhibited by the children's culture. Because the correlations between covert and manifest expression of needs was so low (.11 overall), she concludes that fantasy scores are no indicator of overt behavior. "Good" outcomes were given by 67% of the subjects; for these children, positive correlations were found with n-affiliation, deference, nurturance, and play. In general, then, happy children

tended to tell pleasant stories.

Haworth (1966), in a review of the normative literature, noted that normative responses are the ones that could be predicted by simply describing the pictures. Useful responses, clinically speaking, are those that deviate from the stimulus, introduce additional figures or objects, or give unusual interpretations to the stimuli. She feels that further tabulational studies are unnecessary, and that more is to be gained from examining the meanings and implications of the unusual responses. This belief is underscored by Zubin et al. (1965), who consider deviant responses a reflection of possible pathology.

Much research was directed at the efficacy of animal versus human figures in the CAT stimulus cards. Reviews of the literature (Bellak & Hurvich, 1965; Murstein, 1970; Neuringer, 1968) agree that the overwhelming number of studies failed to show superiority of animal over human pictures, although Bellak argues that the forms were not exactly equivalent (e.g., in Card 10 the puppy could be seen as being brushed, whereas in the human version, spanking is more likely to be elicited).

While Bellak believes that structured stimuli violate the principle of projective testing, Murstein maintains that there is a curvilinear relationship between ambiguity and projection. In this regard, Epstein (1966) recommended

using stimuli with at least three levels of ambiguity (although he was not addressing the CAT in particular). Highly structured stimuli are likely to activate latent drives, whereas highly ambiguous stimuli may not arouse the subject at all. In Epstein's view, TAT stimuli were particularly poor in evoking themes of parent-child relationships, sex, and aggression. Less ambiguous stimuli have the added advantages, he believes, of requiring subjects to deal with material important to the examiner, and of allowing interpretation of responses in reference to a stimulus of known significance.

When assessing the value of the CAT as a clinical instrument, the lack of validity and reliability studies is still problematic. Holt (1950) criticizes Bellak's approach to test-making, which is simply to try it and see if it works. In fairness to Bellak, what he said (in 1968) is that single-case studies are useful in projective tests, because over time they provide data that can be analyzed statistically. Bellak (1968), in turn, criticized Witherspoon's (1968) attempt to organize his longitudinal data by means of factor analysis; Bellak claimed that while it might have reliability, it did not have enough construct validity.

At least two writers (Neuringer, 1968; Wirt, 1970) see the CAT as being most valuable for a play type of

apperception test, used to relax the inhibited or repressed child, although Wirt feels structured doll situations to be superior in that instance. Wirt further suggests using the CAT Supplement (CAT-S, a set of ten pictures designed to tap specific concerns such as peer relationships, health, physical disability, etc.) to assess particular problems, especially in the context of play. The same criticisms leveled against the TAT are relevant to the CAT, for example, that it is subject to a wide range of distortion (Adcock, 1970). There is no reason why basic personality factors would not be represented in the stories, but as Adcock points out, there is no guarantee that they will be. It can be helpful in picking up specific sources of disturbance and for indicating general interests, sources of current motivation, and clues for clinical discussion, but, in his view, it does not provide a reliable measure of any one trait, or a profile of personality traits.

Moriarity (1968) cautions examiners to remember the purpose of the CAT and remain sensitive to the dynamic meaning of individual responses. In order to understand an individual child, one must go beyond the norms to see how problems are perceived and handled, and further, how they affect adjustment. In a long-term follow up of children assessed as preschoolers, Moriarty noted that coping mechanisms used by children to reduce stress and clarify

demands were highly personal; the effect, if not the form, persisted into late adolescence. Simple enumeration of problems misses the dynamic meaningfulness which is the strength of the projective method. Although there are common conditions and uniformities, each individual is unique; we must "seek to understand this uniqueness in relation to standard expectations, feelings, conflicts, and resolutions" (p. 418).

Other instruments have been devised for use with children. In contrast to the lack of preliminary research noted with the CAT, the Michigan Pictures Test (Andrew, Hartwell, Hutt, & Walton, 1953) was initially given to over 1400 children. The authors felt that stimulus material should be realistic, reflecting everyday events with which children could identify. The test is designed for ages 8-14, and supposedly evokes more themes of achievement and concern over peer affiliation than does the TAT or Symonds' Picture Story Test (Symonds, 1939) (Neuringer, 1968). Only three variables differentiated between high and low adjusted children; the Tension Index has held up best over cross-validation studies, according to Neuringer. This is thought to be a global reflection of basic, unresolved needs. While the well adjusted subjects referred more to love and personal adequacy needs, poorly adjusted children referred more to extrapunitive and submission needs.

Maladjusted children used more past tense constructions, in contrast to well adjusted, who used more present tense. In view of the criticisms regarding the psychometric properties of the CAT, Neuringer ironically concludes that the "objectification and precisioning of a projective technique seems to diminish the amount of data from which adequate inferences can be made" (p. 236).

Symonds' (1939) Picture Story Test was intended as a TAT for adolescents. Administration and scoring are similar, except that students are asked for absurd, wild, or silly stories, which may lead to erroneous interpretations. The pictures tend to be gloomy and dismal, and there are insufficient normative tables. Since it has not demonstrated any superiority over the TAT, the test is not widely used (Neuringer, 1968). Other apperceptive tests, such as the Blacky Pictures Test (Blum, 1950) and the Make-A-Picture-Story Test (Schneidman, 1949) are infrequently used in school settings and thus will not be discussed here.

Roberts Apperception Test for Children (RATC). Having explored the history of projective techniques in general, and issues relevant to two well-known apperceptive instruments, the TAT and the CAT, we will turn now to a new instrument, the RATC (McArthur & Roberts, 1982). The RATC grew out of doctoral research on projective stimulus



variation (Roberts, 1958). Four types of stimulus figures - animals, children, adults, and stickmen - were presented in four identical situations - aggression, social relationship, heterosexual relationship, and an ambiguous situation. Human figures elicited the most significant projective material. Most important, the significance of the situation variable supported the conclusion that pictures should be selected on the basis of their appropriateness for investigating aspects of personality.

The stimulus as determinant of response content was further explored by McArthur (1976), when she compared six equivalent pictures from the TAT, CAT, and RAT (as it was originally designated). The RAT was found to be superior to the more traditional projective material in its ability to elicit situationally related nonstereotyped stories with a high level of projection. Since the obtained stories were consistently situationally related, those stories that were a departure from the norm could reasonably be considered to indicate psychological disturbance. The TAT, in comparison, resulted in a large number of non-situationally related stories, suggesting that the pictures may be inappropriate for children. Certainly, as McArthur (1976) and Epstein (1966) both emphasize, a prerequisite for the interpretation of projective stories is a mutual understanding of the situation, shared by the subject and the examiner.

Studies of concurrent validity were subsequently carried out which demonstrated the ability of the RAT to measure behavior change following psychotherapy (Hersh, 1979) and to differentiate between clinical and nonclinical families (Muha, 1977). Additional data were collected and guidelines generated through continued experimental use of the RAT, culminating in the publication of the RATC in 1982.

According to the Manual, the RATC overcame the limitations of previous tests, such as the widely used TAT and CAT, in the following ways:

1. The RATC was specifically designed for children ages 6 through 15 and depicts children in all 16 stimulus cards.
2. The RATC emphasizes everyday interpersonal events of contemporary life. It includes those situations commonly used in thematic projective tests (e.g., parent-child relationships, sibling relationships, aggression, and mastery) as well as new situations such as parental disagreement, parental affection, observation of nudity, school, and peer relationships. The test also emphasizes the child's ability to cope with situations requiring an appropriately aggressive response. Four of the cards depict

aggressive situations in varying degrees of explicitness.

3. The RATC stimuli are consistent in their presentation. All show realistic drawings of children and adults executed in a uniform style by the same artist.
4. The RATC employs easily scored, objective measures which yield high interrater agreement.
5. The RATC provides normative data for a sample of 200 well-adjusted children ages 6 through 15 to aid in the clinical interpretation of test results (p. 1).

Suggested uses for the RATC include clinical assessment and treatment planning, measurement of change, and assessment of developmental changes and situational crises in otherwise normal children. A set of 27 stimulus cards is provided, but because parallel male/female versions occur for 11 cards, only 16 cards are administered to any given child. Appendix A illustrates the 16 cards (with male and female versions interspersed), followed by the authors' description of typical themes and observations regarding the clinical significance of each picture. Appendix B lists the Adaptive and Clinical categories. The Manual provides detailed procedures for administration, scoring, and

interpretation; information regarding development, standardization, and psychometric properties of the test is also included.

Psychological evaluation, as practiced in the context of the public schools, typically involves the assessment of intellectual ability. Depending upon one's theoretical stance, additional tests may be administered to assess children's behavioral and/or emotional status. A range of measures may be employed to assess the latter, from the Rorschach and projective drawings to sentence completion and self-report inventories. A technique which is applicable across the age range of school children, is perceived as an enjoyable activity, and which allows for relatively uncensored self-disclosure is a desirable addition to the psychologist's test battery. The RATC meets these criteria and offers, in addition, a reasonably clear method of scoring which yields T -scores, normed for various age groups.

Research on the RATC to date has focused on clinical populations, and has demonstrated the ability of this instrument to differentiate between adjusted and disturbed children (McArthur & Roberts, 1982). Well-adjusted children differed in their mean scores, with adaptive scales higher than clinical scales; this was particularly reflected in their ability to express positive emotions and to provide

resolutions for their stories. Contrary to the authors' original expectations, "reliance on others" and "limit setting" were found more frequently in the protocols of well-adjusted children. Going to appropriate persons for help is adaptive, after all, as is appropriate punishment which implies the setting of reasonable limits. Adjusted children responded accurately to stimuli, including both figures and situations; while scores on the clinical side were expected, they fell within the average range ( $T$ -scores of 40-60). Levels of projection, however, did not differ for the two groups.

Current research on the RATC includes studies with cross-cultural and ethnic minority groups, with young children, with children in various types of school settings, and with identified subgroups such as learning disabled children (G. E. Roberts, personal communication, August 23, 1985). The authors have pointed out the need to explore the relationship between their standardization sample of "well-adjusted" children and a more representative sample of average children, and to look at differences in mean profiles for children from diagnostic subgroups.

Research in special education has identified several characteristics of learning disabled students, including the following: a lack of self-confidence and task persistence together with a poor self-concept (Shelton, Anastopoulos, &

Linden, 1985); lower levels of social competence and more behavior problems (McConaughy & Ritter, 1986); and a dependent learning style and lack of verbal expressiveness (McKinney & Speece, 1983). The perceptions of parents (Pihl & McLarnon, 1984) and teachers (McKinney & Feagans, 1983) further confirm the results of self-report measures and direct observation, indicating that learning disabled populations may be distinguished from normal children on a number of dimensions. A study which employed the RATC with learning disabled and normal students found that the Depression and Unresolved scales were consistently higher for the LD group (Wong, unpublished manuscript; G. E. Roberts, personal communication, Aug. 23, 1985).

Similarly, children who are identified as having serious emotional problems demonstrate one or more specific characteristics such as depression, acting out behavior, inability to form appropriate relationships, and so on. Although there are diverse definitions of behavioral impairment across states, psychologists, parents, and teachers agree that such children are discernible from the normal population (Cullinan, Epstein, and McLinden, 1986).

#### Purpose of the Study

The purpose of this study, then, was to compare the protocols of children who were referred for psychological services through the public schools with a randomly drawn

sample of nonreferred students. Referred children are frequently found to have a handicapping condition and therefore to qualify for special education services. A Midwest suburban school population may or may not be typical of the population as a whole, since a number of upwardly-mobile, professional families make their homes there. A previous study of the Wide Range Achievement Test (Jastak & Jastak, 1976), for example, demonstrated that local norms were significantly higher than the published norms for primary academic skills (Newville & Hamm, 1984). Therefore it seemed appropriate to explore local norms on a test such as the RATC, as well.

In consideration of the information presented above, the following questions were raised: (a) Will referred and nonreferred groups of children differ significantly on one or more RATC scales? (b) Will mean Clinical scores be significantly higher than mean Adaptive scores for the referred group, with either no differences or higher Adaptive scores for the nonreferred group? (c) Because Resolution scores do not indicate how many stories a child tells which in fact require resolution, another question arose: Will referred and nonreferred groups differ in the proportion of resolved stories? (d) Because McArthur and Roberts informally observed that more intelligent children seemed to score higher on Problem Identification, a further

question was raised: Will scores on the Problem Identification scale correlate positively with intelligence or with standardized measures of achievement? (e) While the Clinical Indicators (Atypical Response, Maladaptive Outcome, and Refusal) occurred infrequently in the original research population, clinic children nevertheless obtained higher mean scores on all Indicators. Thus a final question: Will a similar pattern occur for referred and nonreferred children?



## Chapter II

### Method

#### Subjects

The referred group of children included 31 students in grades 1-8 who were referred for psychological evaluations, or due for three-year evaluations, in a midwestern suburban school district. Two protocols were eliminated from the study, one from a student whose measured intelligence was within the educable mentally handicapped range, and one from a behaviorally impaired student who failed to comply with instructions. The number of students in each age group was as follows: 6-7 year olds: N = 5; 8-9: N = 3; 10-12: N = 11; 13-15: N = 10. There were 21 boys and 8 girls.

To form a nonreferred group of subjects, teachers in grades 1-6, at two elementary schools, were each invited to randomly select five students who had never been referred to the multidisciplinary team for learning or behavior problems. Explanatory letters and consent forms were sent to these families (100 in all). From those who gave consent, 5 from each grade level were randomly drawn for a total of 30 subjects. One protocol was omitted when it was discovered that the child had been referred for a suspected learning disability at his previous school. The number of nonreferred subjects in each age group was as follows: 6-7

year olds: N = 6; 8-9: N = 11; and 10-12: N = 12. There were 14 boys and 15 girls. Thus each group (referred and nonreferred) consisted of 29 students.

Scores on the Wechsler Intelligence Scale for Children - Revised (WISC-R) were available for 25 referred subjects, with a breakdown into Verbal and Performance IQ for 24 subjects. Full Scale IQs ranged from 84-113 ( $\underline{M}$  = 95,  $\underline{SD}$  = 9); Verbal IQs, 78-109 ( $\underline{M}$  = 92,  $\underline{SD}$  = 10; and Performance IQs, 78-124 ( $\underline{M}$  = 100,  $\underline{SD}$  = 12). Scores on the Woodcock-Johnson Psycho-Educational Battery (WJ), an individually administered achievement test, were also available for 22 of the referred subjects. The WJ yields standard scores in reading, math, written language, and general knowledge.

California Achievement Test (CAT) scores were available for all but two of the nonreferred children in grades 3-6. Total battery scores for those 17 subjects ranged from 50-96,  $\underline{M}$  = 68 (normal curve equivalents). Two second graders who had been tested for the district's Challenge program had obtained percentile scores in the 90s. Based upon their reported reading level at the end of the school year, the other children in grades 1 and 2 appeared to be academically average or above.

#### Materials and Procedures

The 16 pictures of the RATC were individually

administered and scored according to standardized instructions provided in the manual. Children were tested in their schools, in a room apart from their classrooms. The investigator collected all but six protocols, which were obtained from other school psychologists in the same district.

Following is a brief description of each of the RATC scales.

Adaptive Scales:

1. Reliance on Others (REL) - measures the adaptive capacity to use outside help to overcome a problem.
2. Support-Other (SUP-O) - reflects a tendency to support others by giving assistance, emotional support, or material objects.
3. Support-Child (SUP-C) - measures self-sufficiency and maturity as indicated by assertiveness or the experience of positive emotions.
4. Limit Setting (LIM) - measures the extent to which parents or other authority figures place reasonable limits on the child in response to a perceived violation of rules or expectations.
5. Problem Identification (PI) - indicates the ability to formulate concepts beyond the card and to articulate problem situations.
6. Resolution 1 (RES-1) - reflects a tendency to seek easy

or unrealistic solutions to problems, including those with a magical, wish-fulfilling, or unrealistic quality.

7. Resolution 2 (RES-2) - indicates a constructive resolution, limited to the present situation.
8. Resolution 3 (RES-3) - indicates a constructive resolution which goes beyond the immediate problem (e.g., the problem-solving process is fully explained or the solution is generalized to new situations).

Clinical Scales:

9. Anxiety (ANX) - assesses the frequency of manifest anxiety or apprehension, including remorse and themes of illness and death.
10. Aggression (AGG) - measures the extent to which characters express anger or engage in physical or verbal aggression.
11. Depression (DEP) - used to score stories which contain sadness, despair, or physical symptoms of depression such as fatigue.
12. Rejection (REJ) - used to score themes of separation, jealousy, discrimination, or feelings of being left out.
13. Unresolved (UNR) - indicates an emotional reaction left hanging or no outcome to a stated problem.

Indicators:

1. Atypical Response (ATY) - indicates extreme deviation from the usual themes or primary process thinking

(includes homicidal or suicidal ideation and child abuse.)

2. Maladaptive Outcome (MAL) - scored when characters make solution to a problem more difficult (e.g., running away) or when the story ends with a main character dying.
3. Refusal (REF) - scored when a child refuses to give a response, or begins and then stops abruptly.

### Scoring and Reliability

In accordance with the RATC manual, T -scores were assigned to each raw score for the eight Adaptive and five Clinical scales. (Because Resolution 3 is expected only for the oldest age group, the 6-12 year olds have scores for only seven Adaptive scales.) McArthur and Roberts (1982) consider T -scores < 40 and > 60 (one standard deviation above and below the mean of 50) to reflect significant differences from a well-adjusted population of children. These scores would be equivalent to the 16th and 84th percentile ranks, respectively.

Because the three Indicators (Atypical Response, Maladaptive Outcome, and Refusal) occurred too rarely in the original standardization sample to have the psychometric properties of scales, cut-off points were arbitrarily established by the authors as the raw score at which the cumulative frequency > 90%.

Two experienced school psychologists, who had used the RATC for several years and also attended a workshop given by Dr. Roberts on the use of the RATC, scored a subset of 10 protocols to establish interrater reliability. Five protocols from each group (referred and nonreferred) were randomly selected. A reliability figure was calculated for each scale of each protocol by dividing the smaller score by the larger one. These were averaged to form mean reliability figures as follows: Referred group, Adaptive scales = 87%; Referred group, Clinical scales = 92%; Nonreferred group, Adaptive scales = 84%; Nonreferred group, Clinical scales = 95%; and overall average for both groups = 89%. Only two scales within the nonreferred group's mean scores fell below 80% reliability; these were Limit Setting and Problem Identification. Upon inspection of individual protocols, these appeared to be the result of differing interpretations of how to score the phrase, "get in trouble." Reliability for the Clinical scales for both groups ranged from 91 to 100%, with the exception of Anxiety for the referred group, which was 82%.

## Chapter III

Results

In order to determine whether there were significant differences between referred and nonreferred groups of children on the RATC scales, subjects' T -scores for each of the scales were subjected to univariate analysis with repeated measures. There was a significant main effect for RATC scales,  $F(1,11) = 26.35, p < .01$ . The main effect for groups was nonsignificant, and thus an overall difference between groups was not supported. However, there was a significant interaction between groups and RATC scales,  $F(1,11) = 6.22, p < .01$ . Resolution 1 was higher for the referred group, while Resolution 2 was higher for the Nonreferred group, as indicated by Tukey's WSD test for differences between means. Table 1 presents the mean and standard deviation of RATC scale scores for both groups. A summary of tests of pairwise contrasts of mean scale scores is presented in Table 2, again using Tukey's WSD criterion.

To determine whether Clinical and Adaptive scores differed between groups, mean T -scores were calculated for Adaptive and Clinical scales and analyzed by a 2 (Group) x 2 (Scales) ANOVA, with scales as the within-subjects variable. While the difference between referred and nonreferred groups was not significant, there was a main effect for the two

Table 1

Mean and Standard Deviation of Scale Scores for Referred and Nonreferred Groups

Scales	Group			
	Referred		Nonreferred	
	Mean	SD	Mean	SD
Reliance on Others	46.4	12.0	50.9	10.2
Support - Other	38.2	11.3	37.2	9.3
Support - Child	50.1	11.5	49.1	9.4
Limit Setting	54.2	12.3	52.1	11.6
Problem Identification	46.6	13.0	52.2	11.5
Resolution 1*	54.2	11.8	44.8	7.7
Resolution 2**	38.7	11.7	56.6	14.9
Anxiety	52.3	10.4	58.6	12.1
Aggression	55.8	10.1	52.1	12.1
Depression	63.7	13.0	65.5	10.5
Rejection	59.8	9.2	59.0	11.8
Unresolved	67.3	14.4	59.8	13.6

\*  $p < .05$ .      \*\*  $p < .01$ .



Table 2

Differences in Mean Scale Scores using Pairwise Contrasts (Tukey's WSD Criterion)

	Treatment											
	S-0	R-2	Rel	PI	R-1	S-C	Lim	Agg	Anx	Rej	Unr	Dep
S-0	-	9.92	10.95	11.69	11.76	11.90	15.44*	16.26**	17.73**	21.68**	25.80**	26.85**
R-2		-	1.03	1.77	1.84	1.98	5.52	6.34	7.81	11.76	15.88**	16.93**
Rel			-	0.74	0.81	0.95	4.49	5.31	6.78	10.73	14.85*	15.90**
PI				-	0.07	0.21	3.75	4.57	6.04	9.99	14.11*	15.16*
R-1					-	0.14	3.68	4.50	5.97	9.92	14.04*	15.09*
S-C						-	3.54	4.36	5.83	9.79	13.91*	14.95*
Lim							-	0.82	2.29	6.24	10.36	11.41
Agg								-	1.47	5.42	9.54	10.59
Anx									-	3.95	8.07	9.12
Rej										-	4.12	5.17
Unr											-	1.05
Dep												-

\*p < .05. \*\*p < .01.

scales,  $F(1, 56) = 105.44$ ,  $p < .01$ , with Clinical higher than Adaptive scores. The interaction was nonsignificant. Table 3 presents the mean scores and standard deviations for Adaptive and Clinical scales by group. These results are contrary to the expectation that referred children would have higher mean Clinical scores.

To examine the proportion of children who resolved problems, a resolution ratio was derived for each subject by combining the total number of Resolution 1, 2, and 3 raw scores and dividing by the number of opportunities available for resolution. Mean scores for both groups were then compared using a  $t$  test for independent groups,  $t(56) = -2.417$ ,  $p < .05$ . The mean resolution ratio for the referred group was 0.43, and for the nonreferred group, 0.62, indicating that children in the latter group were more likely to resolve an identified problem situation.

To address the question of correlations in general, and between RATC scales and intelligence or achievement in particular, Pearson's correlation coefficients were first calculated for combined subjects, then by group, across all variables except Resolution 3. (Resolution 3 was omitted because it occurred only twice in the Referred group and not at all in the Nonreferred group.) In general, mean adaptive scores were positively correlated with the Adaptive scales and mean clinical scores with the Clinical scales. However,

Table 3

Mean Scores and Standard Deviations for Adaptive and Clinical Scales by Group

Group	Scales				Group Mean
	Adaptive		Clinical		
	Mean	SD	Mean	SD	
Referred	46.93	7.92	59.76	5.90	53.34
Nonreferred	48.93	5.57	59.07	6.08	54.00
Scale	47.93	6.58	59.41	5.95	

contrary to expectation, the Anxiety and Rejection scales demonstrated a positive correlation with mean adaptive scores (as did Aggression for the referred group). Resolution ratios, in general, correlated positively with the Adaptive scales. Table 4 includes correlation coefficients for selected subject variables across groups. (Correlations between resolution ratio and Resolution 1, Resolution 2, and Unresolved were omitted since those scale scores were used to compute the resolution ratio.)

Full scale WISC-R scores (IQ) for the referred group, as well as general knowledge scores from the Woodcock-Johnson, had a positive correlation with Problem Identification (both  $p$  s  $< .01$ ), thus supporting Roberts' observations. The Resolution 2 and Anxiety scales also correlated positively with IQ (both  $p$  s  $< .05$ ). Correlations for selected subject variables for the referred group are presented in Table 5.

For the non referred group all correlations between total California Achievement Test (CAT) scores and RATC scales were nonsignificant. Aggression was positively correlated with Clinical but not Adaptive scores for the nonreferred group. Correlations for the nonreferred group are shown in Table 6.

Finally, Pearson's chi square tests were used to determine whether groups differed in the number of children

Pearson's Correlation Coefficients for RATC Scales and Selected Subject Variables (Whole Group)

	Adaptive Scales						
	Rel	S-0	S-C	Lim	PI	R-1	R-2
Mean Adaptive Score	.70**	.71**	.43**	.50**	.61*	.23*	.69**
Mean Clinical Score	.10	-.03	-.09	.10	.24*	-.09	-.01
Resolution Ratio	.48**	.53**	.35**	.25*	.28*	a	a

	Clinical Scales				
	Anx	Agg	Dep	Rej	Unr
Mean Adaptive Score	.42**	.30**	.06	.32**	-.74**
Mean Clinical Score	.47**	.59**	.47**	.62**	.39**
Resolution Ratio	.27*	.03	-.02	.17	a

<sup>a</sup>Resolution/Unresolved scores were used to calculate the resolution ratio.

\* p <.05.      \*\* p <.01.

Table 5

Correlations Between RATC Scales and Selected Subject Variables  
for Referred Group

	Adaptive Scales						
	Rel	S-0	S-C	Lim	PI	R-1	R-2
Mean Adaptive Score	.81**	.69**	.49**	.68**	.62**	.49**	.67**
Mean Clinical Score	.13	-.07	.00	.17	.38*	.00	-.09
Full Scale IQ <sup>a</sup>	.26	.06	.23	.10	.52**	.22	.39*
Resolution Ratio	.50**	.53**	.42*	.46**	.18	b	b

	Clinical Scales				
	Anx	Agg	Dep	Rej	Unr
Mean Adaptive Score	.38*	.49**	.19	.32*	-.73**
Mean Clinical Score	.57**	.49**	.48**	.61**	.45**
Full Scale IQ <sup>a</sup>	.37*	.25	.05	.17	-.24
Resolution Ratio	.17	.15	.02	.10	b

<sup>a</sup><sub>n</sub> = 25

<sup>b</sup> Resolution/Unresolved scores were used to calculate the resolution ratio.

\* p < .05.      \*\* p < .01.

Table 6

Correlations Between RATIC Scales and Selected Subject Variables  
for Nonreferred Group

	Adaptive Scales						
	Rel	S-0	S-C	Lim	PI	R-1	R-2
Mean Adaptive Score	.50**	.78**	.35*	.31*	.57**	.01	.87**
Mean Clinical Score	.10	.00	-.21	.03	.13	-.32*	.12
Resolution Ratio	.38*	.63**	.33*	.08	.28	a	a

	Clinical Scales				
	Anx	Agg	Dep	Rej	Unr
Mean Adaptive Score	.44**	.18	-.18	.38*	-.75**
Mean Clinical Score	.46**	.66**	.48**	.64**	.32*
Resolution Ratio	.23	.02	-.16	.28	a

<sup>a</sup>Resolution/Unresolved scores were used to calculate the resolution ratio.

\*  $p < .05$ .      \*\*  $p < .01$ .

who provided Atypical Responses or Maladaptive Outcomes for their stories. The results were nonsignificant in both cases. Mean raw scores for the referred group were as follows: Atypical - 0.83; Maladaptive - 1.17; and Refusal - 0.48. These scores were accounted for by 41% (12), 55% (16), and 24% (7) of the referred subjects, respectively. Mean raw scores for the nonreferred group were as follows: Atypical - 0.52; Maladaptive - 0.45; and Refusal - 0.03. These scores were accounted for by 34% (10), 34% (10), and 3% (1) of the nonreferred subjects, respectively. Thus, while the results were statistically insignificant, the overall pattern of scores on the Clinical Indicators was similar to that of the original research population.



## Chapter IV

### Discussion

#### Discussion of the Results

The basic question of the present study was whether the RATC would discriminate between two groups of students: those who displayed problems of learning and/or behavior to the extent that they were referred for a psychological evaluation, and children who had not been referred and therefore were generally considered to be "normal." In quantitative terms, the results were only partially in the expected direction. The principal difference which emerged was in the ability of normal children to resolve problem situations in their stories. This finding is consistent with McArthur and Roberts' (1982) observation that clinic children tended to be less mature cognitively and thus frequently resolved problems in a quick and easy manner (i.e., Resolution 1).

In neither the original study nor in the present one did the clinical scales of Aggression, Anxiety, or Depression differ significantly between groups. The authors of the test suggested that while individual protocols were sensitive to differences in affect (including feelings such as anxiety and depression), such differences tended to "wash out" when averaged into the data of a relatively

heterogeneous group.

One would expect Roberts' research sample to display marked differences, since the standardization group was comprised of children nominated on the basis of being well-adjusted (according to several specified criteria), and the clinic group, children referred to Child Guidance Clinics. It appears that a randomly drawn public school sample does not differ dramatically from classmates who have been referred to the school psychologist. A confounding factor in the present study was that the research sample was a heterogeneous group of referred students; some children did not qualify for special services (although they evidenced problems which were serious enough to indicate the need for an evaluation). Furthermore, while all behaviorally impaired children (by definition) and many learning disabled children evidence some emotional problems, certainly there are students who appear well-adjusted in spite of academic difficulties. Finally, the suburban location of the school district involved in this study included a relatively restricted range of subjects in terms of ethnicity and socio-economic level. This combination of factors may well have minimized the differences between groups.

One short-coming of this study was the lack of secondary students in the nonreferred sample. Thus it was

not possible to examine Resolution 3 scores between groups. In the referred group, however, 12-15 year olds had a total of only two Resolution 3 scores, with a preponderance of Resolution 1 responses. When the proportion of resolved stories was compared (using a resolution ratio), the nonreferred students did score higher as a group. This finding seems consistent with McConaughy and Ritter's (1986) research, which indicated that learning disabled boys demonstrated more problems in social competence and behavior than normal boys the same age.

In regard to the positive correlations between some of the clinical scales (Anxiety and Rejection for both groups, as well as Aggression for the referred group), some conjecture may be in order. Roberts points out that the ability to express a certain amount of aggression is healthy, and several of the RATC cards specifically "pull" for aggression. It is the atypical expression (e.g., beating) or denial of aggressive feelings which is clinically significant in such instances.

Anxiety is potentially adaptive in moderate amounts also, in terms of optimal arousal theories (i.e., either too much or too little is debilitating.) Similarly, in the Koppitz scoring method for the Bender Visual-Motor Gestalt test, constriction is considered a sign of anxiety, but has been shown to correlate positively with school achievement.

There may be an unintentional confounding of the Anxiety scale, too, in that making an apology (which is scored on the Anxiety scale) may be quite appropriate in some situations.

It is not clear from the available data whether the positive correlation between IQ and Problem Identification (PI) is due to the ability of brighter children to express themselves verbally, or to the cognitive ability to identify a problem. McArthur and Roberts state that children with high PI and low Resolution scores are good candidates for therapy because they at least are able to articulate problems. It will not surprise school psychologists to learn that the general knowledge subtest of the Woodcock-Johnson correlated positively with PI, and thus with IQ as well; a pattern of low scores in one or more of the achievement areas (reading and written language, or math) and a relatively high score on general knowledge is virtually a hallmark of learning disabled youngsters. Academic achievement scores, on the other hand, appeared to have no consistent relationship to the RATC.

The Clinical Indicators are intended to act as warning signals of emotional disturbance. Again, the heterogeneity of the samples in this study may have obscured real differences between groups. Two students in the nonreferred group, for example, accounted for 11 responses. Thus the

nonreferred sample included children who showed evidence of emotional disturbance although they did not exhibit unusual problems in school, just as some learning disabled students demonstrated problems in academic but not emotional areas.

### Clinical Validity

Having examined the RATC from the viewpoint of statistical analysis, however, a crucial question remains regarding its validity as a clinical instrument. In cases where specific behavioral problems were already evident, the parents were sometimes asked to respond to the Personality Inventory for Children (PIC; revised format profile form) (Wirt, Lachar, Klinedinst, & Seat, 1982). Five PIC profiles were available for children in this study, and while not subjected to statistical analysis, a comparison of PIC and RATC profiles revealed that the same areas of concern were identified in nearly a one-to-one correspondence in four of the five cases. (In the fifth instance, the father served as respondent for the PIC; it was the examiner's impression that the day-to-day care of the children was left to the step-mother in that family and he was unaware of his child's emotional state.) This is a form of convergent validity, since two very different types of information - parental observations of behavior and projective material provided by the child - pointed to the same conclusions.

Several examples may help to demonstrate the usefulness

of the RATC as a clinical instrument. McArthur and Roberts note that very low scores on the Clinical scales may reflect denial or avoidance. This was clearly illustrated in the case of a 15 year old boy who had at one time been in an engineered classroom for the behaviorally impaired. After several years with a foster family, he had made good progress and was generally doing well in junior high school. He had been suspended on four occasions the previous year, however, for outbursts of aggressive behavior. On Card 13, which depicts a boy with a chair raised above his head in anger, he responded as follows: "He's carrying a chair home from a garage sale and he's just real happy, and since he's in a good mood, he's kinda hyper and lifting it over his head." Similar nonaggressive responses were given for cards which pull for aggression. This case supports the plea for nonambiguous stimuli (Epstein, 1966); when the expected response is known, clearer conclusions may be drawn from responses which are a departure from the norm. (The percentage of classes of responses for each age group are listed in the RATC manual, which is helpful when determining how typical a particular response might be.)

It was noted that many responses were autobiographical in nature. For example, an 11 year old girl told this story for Card 12: "This girl [woman] is leaving this guy because they had a big fight and she [the child] was watching. She

was supposed to be in her room doing homework, and they had a big fight over whose house it is and who's going to pay the rent, and she [the lady] just decided to leave." The mother had talked with us prior to the evaluation and related similar information; in fact, she did leave one month later. The child had been referred because of failure to complete assignments.

A 13 year old boy, whose mother had recently left the family, told this story to Card 2: "This woman is happy to see her son because she has been divorced and her son was living with her (sic) father and she hasn't talked to him on the phone or even got a letter written to him. (End?) Don't know - the mom probably stays with him a little while, then goes back to where she's living because they're divorced. Maybe her son goes to live with her, for a little while - she'll probably keep him anyways." This story reflects both the reality of the separation and the boy's longing for his mother. The father told us that the mother wanted the youngest child to live with her while the three older ones remained with him.

A 10 year old boy who came from an abusive family and who exhibited numerous atypical behaviors in the classroom demonstrated problems with reality testing in his response to Card 15: "He's watching his mom take a bath - the boy - and then someone rang the doorbell and he shut the door and

looked and no one was there. It was just his mom gettin' him to leave. It was just a balloon or a picture of her holdin' some soap, or a waterproof robot." Another 8 year old who displayed a great deal of acting out behavior at home and at school responded in an atypical fashion to many cards. Here is her response to Card 7: "Once upon a time there was a girl who found a boyfriend. (These guys are 19 or 20.) Then she woke up and saw her boyfriend coming in. He said, 'Wanna get married?' She said, 'Well, O.K.' Then they got into bed together and they kissed, and then her mom came in, and she had to hide Johnnie under the covers. Then he started to kiss her legs. Then her mom got out of the bedroom. Then he got out of the covers, and they got married under the bed, with all the mice." This is a child for whom the mother's PIC reflected spikes on numerous scales.

A pair of stories will be presented to illustrate differing abilities to resolve problems. Although both students were being reevaluated for learning disabilities, the girl comes from a nonsupportive, abusive family while the boy has a very strong, close-knit family. He also has a higher IQ (113, compared to 88 for the girl), which suggests the cognitive dimension involved in problem solving. The girl, aged 14, responded as follows to Card 3: "She's tired and she don't want to do her homework and it's due tomorrow,



and she's falling asleep." The boy, aged 12, responded to the same card in this manner: "This kid just got home from school, and he's mad at the teacher 'cause she gave him so much homework, and he's angry and throws his pencil on the ground, and the more he thinks about it, the more he gets mad. And he goes and talks to his mom, and she says, "Have patience, you'll get it all done," and he goes back and finishes all his homework, and then he goes to school the next day, and he gets 1's on all of his homework. That's a good way to end a story."

It was clear, in reviewing the protocols from this study, that all children had problems. As the statistical results demonstrated, the difference between groups frequently lay in the way the problem was resolved. A nonreferred fifth grade boy of Filipino descent told this story for Card 6: "Well, these two kids might not let this kid play because he's a different color than them, and they might be prejudiced of 'im. Before, he might've been new to the school, and he might've felt strange around other color people, and they maybe make fun of him because he's a different color. He can maybe talk to his parents or the principal about it, and then he can become friendlier and maybe these kids can learn to like him - cuz if you're a different color, that doesn't mean you're so bad." This boy had recently moved from the east coast, and no doubt

included more than a little autobiographical information in his story. A referred fourth grade boy told a story for the same picture as follows: "The boy's going to the park, and these two kids stopped him and said, 'Give me your money,' cuz there's a candy store at the park. So these kids took his money and they got something and he didn't, and they beat him up, and he got a bigger kid and beat him up - but the big kid's not in the picture. Then the kid beat him up."

#### Conclusion

It seems clear that a projective test such as the RATC contributes valuable information to a psychological evaluation. In addition to the studies of reliability and validity referred to earlier, the present study tends to support convergent validity based upon the PIC and other less formal measures such as interview and sentence completion techniques. Together these components of an evaluation lead to a broader, more integrated view of how a given child is currently functioning. While the results of this study indicate that "normal" kids, at least in one suburban school district, tend to score less differently from their counterparts with learning and/or behavior problems than might be expected, the RATC still may be a valuable tool in discovering what factors enter into a particular child's situation, and help identify his/her ways

of perceiving and responding to problems.

Using more clearly defined diagnostic subgroups would be helpful in future research of this kind, together with larger and more diverse samples of "average" students. It is clear from the present study, however, that children with problems need to learn problem-solving skills. Specific teaching in that area appears to be as essential as remediation in content areas, and certainly its impact will extend well beyond the classroom.

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Appendix A



Card 1B  
Family Confrontation



Card 2G  
Maternal Support



Card 3B  
School Attitude



Card 4  
Child Support/Aggression



Card 5G  
Parental Affection



Card 6B  
Peer/Racial Interaction



Card 7G  
Dependency/Anxiety



Card 8  
Family Conference



Card 9  
Physical Aggression



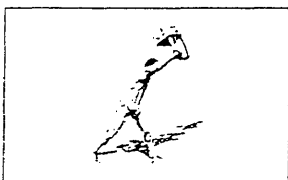
Card 10B  
Sibling Rivalry



Card 11  
Fear



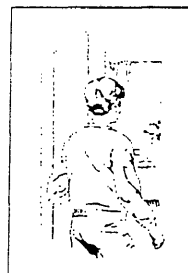
Card 12G  
Parental Conflict/Depression



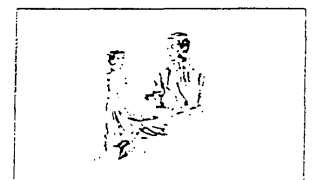
Card 13B  
Aggression Release



Card 14G  
Maternal Limit Setting



Card 15  
Nudity/Sexuality



Card 16B  
Parental Support

## General Description of Stimulus Cards

There are 27 stimulus cards, of which only 16 are administered to any given child. The 11 cards designated B/G indicate those with parallel male and female versions. The typical themes elicited by each card are described below (as adapted from McArthur & Roberts' Manual , pp. 2 & 4).

1B/G (Family Confrontation) usually elicits stories in which parents give advice or correct a wrongdoing. A child's response to this card may help clarify the presenting problem, especially the nature and extent of problems in family relationships.

2B/G (Maternal Support) usually evokes stories in which something traumatic or negative has occurred and the child is reaching out to the mother for help. Responses may reveal the nature of the child's dependency needs in relation to a maternal figure, and how she responds.

3B/G (School Attitude) usually reflects a child's attitudes toward school. It may reveal whether a child reaches out for help, from whom support is available, and the level of the child's academic aspirations and successes.

4 (Child Support/Aggression) strongly suggests antecedent themes of aggression, accident, or illness, and usually reveals the nature of support given by the standing girl

and others who may be called on for help.

5B/G (Parental Affection) focuses on the child's observation of intimacy between male and female adults, especially parents, and often reveals feelings of rejection, warmth, or jealousy.

6B/G (Peer/Racial Interaction) reflects the child's interactions with peers including friendship, rejection, or rivalry. Racial attitudes may be expressed because one of the peers is black.

7B/G (Dependency/Anxiety) frequently evokes stories about anxiety-producing situations such as waking up from a bad dream, fear of the dark, or feeling ill. It may provide clues as to whether the child tries to cope with anxiety alone or seeks the help of others.

8 (Family Conference) elicits a wide variety of stories, including punishment for the children for something they did wrong, or planning something positive to do together. Children being raised by single-parent mothers frequently see the male adult figure as an authority figure (e.g., doctor, principal, minister).

9 (Physical Aggression Toward Peer) provides an opportunity for children to express their feelings about aggression, their need for help, and the coping skills they use for resolving conflicts. Denial of aggression is clinically significant.

10B/G (Sibling Rivalry) tends to elicit a child's feelings about having a new sibling including jealousy, curiosity, a wish to care for the baby, and concern about the mother's continued love and availability. The response of the mother may yield clues about the child's perception of the mother's parenting.

11 (Fear) often elicits stories about the girl reacting to an external danger such as an animal or another person, or some traumatic event. Children may reveal their ability to cope with fear by themselves or their tendency to call on others for help in solving a problem.

12B/G (Parental Conflict/Depression) generally elicits themes of parental conflict or depression. Children may interpret the card as father's response to mother's illness, parents arguing, or parents upset about an external event or something the child did wrong. The stories usually detail the father's role in providing support and the child's reaction to parental upset.

13B/G (Aggression Release) usually evokes details of what happened to make the person angry and how he/she will handle the aggressive feelings. Denial may suggest discomfort with aggression or a need to avoid expressing aggression.

14B/G (Maternal Limit Setting) generally elicits a child's

response of wrongdoing and subsequent parental punishment. It may reveal clues about how limits are set in the family, and the nature and severity of the punishments.

15 (Nudity/Sexuality) generally reveals a child's emotional reactions to nudity and to sexuality more generally. In the narrative, the boy may leave, become embarrassed, or express curiosity; the girl may react with anger, embarrassment, or seek parental intervention. The child telling the story may show behavioral signs of embarrassment.

16B/G (Parental Support) typically reveals the nature of the relationship between the child and the father or a father figure, and may provide information about how the child perceives the father's parenting.

## Appendix B

## RATC Profile Scales and Indicators

<u>Scale or Indicator</u>	<u>Abbreviation</u>
ADAPTIVE SCALES	
Reliance on Others	REL
Support-Other	SUP-O
Support-Child	SUP-C
Limit Setting	LIM
Problem Identification	PI
Resolution 1	RES-1
Resolution 2	RES-2
Resolution 3	RES-3
CLINICAL SCALES	
Anxiety	ANX
Aggression	AGG
Depression	DEP
Rejection	REJ
Unresolved	UNR
INDICATORS	
Atypical Response	ATY
Maladaptive Outcome	MAL
Refusal	REF