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An Experimental Study of the Effect of the Trial Blot Administration on Child Rorschach Responses at the Eight Year Level

Joan Carroll Baldwin
Loyola University Chicago

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AN EXPERIMENTAL STUDY OF THE EFFECT OF THE
TRIAL BLOT ADMINISTRATION ON CHILD RORSCHACH RESPONSES
AT THE EIGHT YEAR LEVEL

by

Joan Carroll Baldwin

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

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LIFE

Joan Carroll Baldwin was born in Philadelphia, Pennsylvania, August 16, 1930.

She was graduated from the Convent of the Sacred Heart, Lake Forest, Illinois, June, 1948 and from Manhattanville College of the Sacred Heart, June, 1952 with the degree of Bachelor of Arts. She began her graduate studies in the Department of Psychology at Loyola University, Chicago, in September, 1952.

At present she is employed as an Assistant Psychologist at the Loyola Center for Guidance and Psychological Service, Chicago, Illinois.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Statement of the problem—Difficulties encountered by previous workers and conclusions rendered—Primary and secondary purposes of the present investigation.	
II. REVIEW OF THE RELATED LITERATURE	3
Results and conclusions discussed of previous Rorschach studies with children—Changes in administration procedures.	
III. PROCEDURE	18
Description of the test—Description of the population—Administration procedure—Description of the scoring.	
IV. ANALYSIS OF THE DATA	25
Discussion of statistical difference between age and IQ—Overview of the Rorschach findings of the two groups—Control and Experimental groups compared for difference—Discussion of these results as compared to other findings.	
V. SUMMARY AND CONCLUSIONS	36
BIBLIOGRAPHY	41
APPENDIX I	44
APPENDIX II	51
APPENDIX III	52

LIST OF TABLES

Table	Page
I. MEANS AND MEASURE OF DIFFERENCES FOR AGE AND INTELLIGENCE BETWEEN THE CONTROL AND EXPERIMENTAL GROUPS	26
II. MEANS, MEDIANS, AND STANDARD DEVIATIONS OF PRODUCTIVITY AND RORSCHACH LOCATION AREAS FOR THE CONTROL AND EXPERIMENTAL GROUPS	27
III. MEANS, MEDIANS, AND STANDARD DEVIATIONS OF RORSCHACH DETERMINANTS FOR THE TWO GROUPS IN THE PRESENT STUDY	28
IV. MEANS, MEDIANS, AND STANDARD DEVIATIONS OF RORSCHACH CONTENT CATEGORIES AND SUPPLEMENTARY MEASURES FOR THE TWO GROUPS	29
V. INCIDENCE OF THE CONTROL AND EXPERIMENTAL GROUPS COMPARED FOR DIFFERENCE ON SELECTED RORSCHACH CATEGORIES	30
VI. CONTROL AND EXPERIMENTAL GROUPS COMPARED FOR RESPONSES, LOCATION, W:M RATIO, PERCENTAGE OF RESPONSES TO LAST THREE CARDS AND <u>ERLEBNISTYP</u>	31
VII. MEANS FOR EIGHT-YEAR-OLDS REPORTED BY LEDWITH, AMES, AND THE PRESENT STUDY COMPARED TO KLOPPER'S ADULT CRITERIA	32

CHAPTER I

INTRODUCTION

The increasing number of Rorschach studies with children evidences the interest psychologists have shown in extending the use of this instrument. Those investigators who first sought to evaluate a child's personality development by means of the Rorschach met with many obstacles. Accumulated records revealed large differences. A widely scattered use of determinants were found within a range of a few years, and many other Rorschach response factors seemed dependent upon experience and maturity. These variations led to the conclusion that children's records could not be interpreted in the light of adult norms, and practical age norms were necessary.

Administrative difficulties were also encountered. It was generally agreed that several prerequisites were necessary to insure a valid record. For instance, the child must be able to focus his attention long enough to react to the cards and show a willingness to communicate to the examiner. Varying motivation techniques were employed by different investigators in order to help elicit optimal records. These to some extent are a departure from the standard adult procedure.

Several workers advise the use of a trial blot, feeling that such a card established a more favorable set and helped to make the instructions more concrete. The child then more readily understood the directions and the blot

served as a valuable non-verbal orientation to the test. These workers believe that such an additional card does not influence the test results itself. However, it is felt that such assumptions are mere conjecture for the differing procedures may have an unknown effect on the results obtained. Consequently, many workers have argued for development of standard administration procedures for all subjects. There is need for further agreement on the details of administration which will best be determined by a systematic study of the effects of varying procedures on test results.

The purpose, therefore, of the present study is to 1) determine the effect of a trial blot included in the administration of the Rorschach test to a group of eight-year-old children. Such a plan necessitates two groups, one control and the other experimental which will include the trial blot in the administration procedure. 2) This investigation further seeks to contribute to the data accumulated for average eight-year-old children. In this study intelligence and socio-economic status have been restricted to the middle range. It is hoped that this secondary purpose will aid in the establishment of norms which will eventually facilitate wide clinical use of the test with children.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

There have been many studies dealing with the Rorschach Test as applied to children. These investigators have noted particularly the differences between children's records and those produced by adults. Frequently what appears to be normal for children would indicate a severe disturbance in an adult record. It was further found that age factors change the Rorschach pattern considerably. These conclusions have led to the unanimous opinion that before the Rorschach can be effective with children standardized norms must be established.

Concerning the validity and standardization of the Rorschach, Madeline Kerr (20) conducted a pioneer study in 1934 and expressed the conviction that the test was applicable to some degree with children. However, owing to a lack of definite norms the subjective element in scoring creates discrepancies among workers.

Kerr's study included 100 normal boys and girls with ages ranging from seven to twelve, 50 senior girls at the thirteen year level, 40 juvenile girls with ages ranging from seven through eight, 100 mentally defective boys and girls having an age range of eleven through fourteen, and 75 boys and girls attending child guidance clinics. Case histories were compared to the Rorschach test for estimates of children's temperaments. The records were

categorized into psychological types. Forty-five per cent of the normal children were introverted, fourteen per cent extratensive, twenty-nine per cent coartive, and twelve per cent ambiequal. The results of the clinic group revealed forty-eight per cent introversive, twenty-two per cent extratensive, thirty-seven per cent coartive, and three per cent ambiequal. Of the mental defectives, twenty-six per cent were introversive, thirty per cent extratensive, thirty-two per cent coartive, and twelve per cent ambiequal.

The experimental results yielded a significant correlation between wholes and the IQ of the normal children. Mean form-color scores for the normal children was .34, the clinic group .42, and the mental defectives .36. The mean color-form scores for the normals were .58, for the clinic group 1.2, and the mental defectives 1.32. Pure color responses found in the normal group yielded a mean of .02, in the clinic group .42, and for the mental defectives 1.45.

Kerr concludes the Rorschach instrument is adequate for diagnosing emotional instability. Color-form responses measure affective instability and primary color responses reflect impulsiveness which is usually pathological.

Following Kerr a few years later Davidson and Klopfer (13) report their statistical findings on children's performances. In general, the number of responses for the normal child is below that for adults. Children's responses range from 19-46. A consistently increasing trend is seen in the number of whole responses. The average for the six to ten year old is 3.6, for the nine to thirteen year olds it is 4.6. While form plus responses are not stable for children, the figures usually range from 65-85%. Human move-

ment appears with increasing chronological age and pure color responses continue to decline. Animal and human content percentages range from 42-48 and 11-16, respectively.

Klopfer and Margulies (22) examined 155 records of children between two and seven years of age. These children had above-average intelligence. Perseveration, while frequent in the young child, was not found at the four year level. Total whole responses decreased with age. At the fourth year, ten per cent of the children gave only whole responses, at the fifth year three per cent and at the sixth year none of the children confined themselves exclusively to the use of the entire blot. Human and animal movement and form-color responses increased with age, while pure color responses decreased. Color-form and inanimate movement responses appeared infrequently.

Kay and Vorhaus (19) reported their findings from a study of 138 children. The subjects ranged in age from two years to seven years. Eighty to ninety per cent of the children had estimated IQ's ranging from average to superior, while the remainder ranged from 80 to 100. Quantitative results reported are as follows: at the two year level, six per cent of the children saw human movement, eighteen per cent animal and inanimate movement, twelve per cent form-color and color-form, and twenty-nine per cent used pure color. At each level there was a gradual increase in human and animal movement. At the six year level, human movement appeared in sixty-five per cent of the children's records, and animal movement in seventy-eight per cent. Form-color responses likewise showed an increasing percentage of children using this determinant totaling sixty-five per cent at the six year level. Use of color-form reached its height at the five year level where sixty-seven per cent of

the children gave such responses. However, this frequency decreased sharply in the records of the six-year old children. Percentage of pure-color responses showed irregular succession gradually tapering off at the five year level and totaling thirty per cent at the six year level. In general there appeared a rise in the average number of responses which may be attributed to the decrease of rejections. There was a steady decrease in the percentage of children using only whole areas. With increasing age more detail location areas were chosen. Scattered samples of the use of any one of the six shading categories were found at all age levels. The average number of recognizable pure form responses increased from about three and one-half at the two to three year level to almost nine at the six to seven year range. Throughout these five years, the proportion of F responses remained close to fifty per cent of the total.

These records were further analyzed by the two examiners (20) in terms of the intellectual aspects of the personality. Productivity of responses increased significantly from age two to six years eleven months. While whole responses increased with age, the percentage decreased due to the added number of detail responses and total responses. However, these detail responses never exceeded the whole responses. Since age increases a child's critical ability, card rejections appeared more frequent at the older level.

Vorhaus (32) extended the study in an attempt to analyze the records of these same children for their content and manner of approach. She found that the populars applied to adults could be seen in addition to other populars unique to children. If the concept is related in some way to a developmental process the children are unable to respond. Vorhaus attempts to

differentiate between children and adults manner of approach in reference to details. She assigned importance to two criteria, 1) the content interpretation to which a detail most naturally lends itself for each age group, 2) the ease with which an area can be segregated from the total blot.

In 1941 Paulsen (24) reported a normative study using as subjects a group of eighty-two children ranging in age between five years eleven months and six years ten months. Nineteen per cent of the boys and eighteen per cent of the girls had what the author described as low average or border-line intelligence. Those with higher intelligence characteristically produced more human and animal movement responses, form responses and saw more populars. While the use of the whole areas varied little, the brighter children as expected gave superior responses. Sex differences were not significant. Due to the wide range of individual differences, the author comments that these results are not conclusive.

Schachtel's (26) longitudinal study of a child between his third and seventh year reveals the point at which the child forms new perceptions. Perseverations appeared frequently at the third year with form qualities vague and poor. Location areas were exclusively wholes with poor integration. The following year revealed an equal number of wholes and usual details with a decrease in perseveration. Only form was used. At the fifth year, animal movement appeared, form quality increased, but not until the seventh year did human movement appear. It is therefore concluded that form perception takes the place of the movement responses which are later in development.

Norman Kerr (34) made a normative study exclusively on Negro children. The population included sixty children with ages ranging from 3-9. The

intelligence quotients ranged from 88 to 119 with a mean of 103.2. Thirty-one boys and twenty-nine girls were tested. Kerr concluded that trends found in white children were also manifested in these records. The quality of form and whole responses improves with age. Animal movement appeared irregular yet always exceeded human movement. Color-form responses exceeded form-color which did not appear until the five year level.

A research program involving a Rorschach study was initiated at Michael Reese hospital by Thetford, Molish, and Beck (30). In order to evaluate the abnormal, it was felt that a criterion of normalcy should first be established. This investigation included 155 children selected from public schools on the basis of intelligence, behavior as rated by the teacher and average academic achievement. The total group ranging in age from 6 to 17 was divided into three sub groups: 6 to 9, 10 to 13, and 14 to 17. The results indicated a progressive increase in some factors. The number of responses fluctuated, mean for the total group being 27.15, and standard deviation 14.05. The groups were not differentiated on the basis of location. The mean W% was 12.55, standard deviation 11.60. Mean D% was 74.25, standard deviation 14.20, and the mean Dd% was 13.55, standard deviation 10.45. The middle group yielded the highest A% with a mean of 47.95 and standard deviation 16.95. While human detail consistently exceeded human responses the latter content increased progressively with age. Human movement also revealed an increase with age.

In 1952 Carlson (11) reported her findings of a normative study. The subjects totaled 50 boys and 50 girls with an age range of eight years to eight years eleven months. The mean age for boys was 8-10 and the girls' mean

age was 8-8. These children were chosen from ten elementary schools in different sections of Seattle. Intelligence tests were administered and those children falling within the middle range were selected. Serious personality problems were excluded on the basis of the principal's evaluation.

The administration and scoring followed the procedure advocated by Klopfer and Kelly. The results were analyzed in terms of mean, standard deviation, and per cent of the children using the particular category. The mean number of responses was 20.13, standard deviation 12.2. One or more rejections occurred in twenty-seven per cent of the records. Large details exceeded whole responses but every child used at least one whole area. The mean M per cent was 6.84, mean FM per cent 15.15, and mean inanimate movement 1.23 per cent. Shading occurred infrequently. One-half of the population used texture, the mean per cent being 4.88. Color-form per cent was 4.32, and pure color responses never occurred. One-half of the children used animal content and human detail exceeded human responses. Carlson concluded that due to wide variability within the groups definite conclusions regarding the Rorschach characteristics of these children could not be established at present.

Ledwith (23) conducted a normative study with six year old children. The intelligence ranged from 77-148 with a mean of 105.5. Eighty boys and eighty girls were tested. The results yielded no significant sex differences. Girls did show a tendency to give more responses. In comparison to adults these children's records exhibited a preponderance of FM over M and color-form and pure color responses exceeded form color. Ledwith continued this study with 138 of the original tested children and repeated the test each year through the eleventh year. The IQ range was broken up into four groups and the

records analyzed at each age level in terms of mean frequency of the Rorschach factors, and at each of the four levels of intelligence. The highest range including superior and above intelligence, above average, average, and below average. Since this study is concerned with the eight year old children, Ledwith's results will be discussed later in light of this study.

Ames (1) conducted a study of 650 boys and girls selected mostly from the Connecticut area. Twenty-five boys and twenty-five girls were seen at each of the thirteen different age levels, half-year levels from two to six, and annually thereafter through ten years. The majority of these children were above average in intelligence and in social class status. Over 50% of the sample consisted of members of the research group from the Yale Clinic of Child Development. Selection from a New York practicing psychologist were those cases presenting essentially normal problems.

The Minnesota Scale of Paternal Occupations were used for the socio-economic index. Over one-half were in professional groups. Because of the correlation between socio-economic status and intelligence, the socio-economic distribution served as the main index of intelligence level of the group. For two-thirds of the group some sort of intelligence rating was available. This information serves only to identify roughly the intelligence level of the sample. The median and modal rating is superior with IQ's ranging from 116-125, and three-fourths above average intelligence.

While these studies were not always comparable due to different population and administration differences, they tend to agree that there is an evolving pattern of responses, both qualitative and quantitative, with increasing CA. This development, however, is not always direct and gradual. In

general the number of responses tends to increase with age. Number of detail responses rises with human content response. The number of W remains fairly stable in childhood but, because the total number of responses increase with age, the W% declines. The form quality and whole responses improve in organization. Rare detail, not frequent in childhood, seems to increase in pre-adolescence. Pure F decreases with CA while F% increases. Human and animal movement responses were found to increase rapidly during early years, with the latter always predominant. Primary color responses are found in early years. Form-color responses and Sum C increase with CA. Animal content responses remain near 50% throughout the childhood and adolescent period. The percentage of human content responses tend to increase with age.

While these trends were evident, Ames reports each age level as unique, possessing its own distinctive characteristics. The findings of the eight-year-old children will be discussed in the following chapters when comparison is made between those results and the present findings.

The findings summarized thus far have not all used uniform administrative procedures. Many workers with young children have developed special, variant techniques which they feel are helpful in gaining the child's confidence, establishing rapport, and in general eliciting optimal records. However, these methods may produce uncertain results thus making it expedient that a more standard administration procedure be developed for all workers.

One of these methods recommended by Hertz (14) is the use of a trial blot preliminary to the first card, the purpose being to counteract children's attitudes of fear, suspicion, shyness, and doubt, all of which greatly influence the test results. She believed that such a card helped establish a more

favorable set making the first card more comparable to the rest. In a preliminary experiment several blots were made of black ink on white paper and a few very simple in design were then selected. The results of the tests then indicated that the subject now readily understood what the blot designs were like and how they were made. Hertz felt that it did not make any great change in the Rorschach method for Rorschach instructs that "in the case of the subject who does not understand the nature of the test, an explanation should be made, even demonstrating blots before him."

Presenting the trial blot, the child was instructed to look at the card and tell the examiner what it could be or what it looked like. Rotation was permitted and the child was encouraged to give more than one response. When it seemed the child understood, the examiner acknowledged the child's responses with assurance that it did look like what he saw and praised his performance. The first card was then presented and the child again asked what this could be. A two minute time limit was put on response time to each card for standardizing procedures. Immediate inquiry after each card helped towards scoring accuracy.

Hertz's (17) study of six and eight year old children included a population of 111 boys and 131 girls at the six year level and 90 boys and 118 girls at the eight year level. These subjects ranged from high average to superior intelligence. All were white American born. The average IQ was 117 for the six-year-olds and 124 for the eight-year-olds. The records were analyzed in terms representing the manner of mental approach. A table of norms were set up for the total number and percentage of children using W, D, Dr, and S. The mean for the six year old was 41% W, 39% D, 17% Dr, and 2% S. The

eight year olds averaged 27% W, 52% D, 17% Dr, and 4% S. The conclusions offered state that,

while the six year old grasp certain large common and obvious features in an objective situation, they may characteristically react to the whole, often unanalytically and uncritically. The eight year old embrace the whole but show the ability to analyze it into obvious and essential features. A capacity is shown to react differently to the different aspects of an objective situation. These children tend to become more analytical and more specific. In grasping and interpreting situations in the environment, the eight year old reacts now to the whole, now parts, and again the whole as the occasion demands. (17:29)

Swift (29) modified the administrative procedure in her study of normal pre-school children. The children were told that they were going to be shown some funny pictures and the examiner pointed out that they were not really pictures of anything. The inquiry was conducted immediately after the initial free association. Should thirty seconds elapse with no response, the examiner stated that they were not real pictures of anything but sometimes people think they look a little bit like different things. If the child was still bewildered, the examiner gave the assurance that maybe it does not look like anything to him and he could put it down, with the suggestion that maybe the next one would look like something. After all the cards were shown, the rejected cards were again presented and the child was encouraged to respond.

These records were analyzed in terms of frequency of occurrence of the various scoring factors. The results indicated a median number of responses to be 11. The number of responses given on the chromatic cards were greater than those given on the achromatic cards. The most frequent rejected cards were IV and VI, occurring more often with the older children. Color responses were found to appear earlier than movement responses.

Ford (9) too finding that children were easily distracted and sensitive to adults working with them found value in the use of the trial blot. Such a card served as a non-verbal orientation to the test and made the instructions more concrete. Before presentation, Ford told the child that she had something to show them. The trial blot was shown and the child was asked what this could be. After ten seconds, the child was further urged and encouraged for more than one response. Ford did not agree with Hertz in allowing the child to turn the card as she found it not practical with younger children. Inquiry was conducted after presentation of each card in order to avoid boredom on the part of the child.

Ford's study included 123 children with age ranging from three years to seven years eleven months. The group contained approximately the same number of boys and girls, and was highly homogeneous in socio-economic status. The intelligence quotients ranged from 90-157. The mean IQ was 124.35, and standard deviation 14.20. The results show that the following determinants increase markedly with increasing CA: detail responses, pure form responses, the percentage of movement, and of original responses and the total number of responses. The percentage of young children showing introversive tendencies increase with CA. In the area of intelligence, Ford indicates a relationship between various determinants and mental age. The total number of responses and the number of object responses tended to increase with mental age.

Other workers drew heavily on these administrative procedures when testing children. Several believed it more beneficial to add to the foregoing techniques some slight variations of their own, chiefly in the adaptation of simplifying instructions.

Guppy (33) with his study of feeble-minded children closely adhered to Ford's technique even to the point of utilizing her trial blot. Rotation was not permitted and no time limit was set. Inquiry followed each card. Norman Kerr's (34) normative study of Negro children employed Ford's verbal instructions, but omitted the trial blot. He followed Hertz's procedure of allowing rotation. This investigation closely follows Ford's introduction, including the use of her trial blot with the experimental group, but departs from her procedure in permitting rotation.

In summary, the pioneer workers who first sought to test children with the Rorschach found that the test was adequate to some degree for diagnostic purposes. Records analyzed according to adult criteria did show that problem children produced a disturbed Rorschach pattern. However, these early studies proved conclusively the importance of establishing norms. Children may use the same approach as adults in responding to the blots but not to the same extent or for the same reason. In order to facilitate the test's use interpretatively, some authors presented their statistical findings on overall children's performances. Workers began to gather data at different age ranges and studies became focused on the relationship between Rorschach scores and various independent variables. Several studies report a high correlation between intelligence and number of responses, concluding that the brighter children give more responses. Many factors were found to affect the Rorschach scores. The considerable qualitative and quantitative variations may be due to differences in administering and scoring the test. A further explanation may lie in the fact that the subjects in many of these studies differ in intelligence and socio-economic background. Therefore, it became important to

lessen variability within groups and concentrate on selected populations. Wide discrepancies were found even within an age range of a few years, which indicated the influence of age on Rorschach scores. Various workers concentrated on normative studies for the purpose of collecting data at each age level. These studies reveal evidence of general developmental trends.

Investigators have reported that for normal children the number of responses is a function of CA. With age the child becomes more productive and his responses become more elaborate. Generally children are more responsive to the colored cards than the achromatic cards.

At the pre-school level, the child responds frequently to the whole inkblot, while with age he uses more and more fine detail. The whole responses given by very young children are apt to be poor, vague, and disjointed in quality, while those given by older children are usually less vague, often show good form, and are indicative of real effort to integrate the various parts of the blot into the responses. With rising CA the per cent of concepts derived from whole location areas, decreases. Some authors account for this difference as a result of the increasing number of responses. While the mean number of whole responses may remain quite stable throughout childhood, the mean percentage of whole responses decreases. Hertz's (17) reported results of the six and eight year old child reveals the difference in the manner of approach between the two ages. This seems to verify the general conclusions that the W% tends to decline as the D% rises. The per cent of rare detail and white space responses remains relatively stable.

In reference to the determinants, developmental patterns are evident. All authors report that the majority of the interpretations among young

children are based on form. With age there is an increase in the form accuracy level. With increasing age the child shows more maturity, creativity, and imagination, as evidenced by the progressive increase in movement responses. However, throughout childhood animal movement is found to predominate. Inanimate movement is rarely reported in children's records. Pure color responses are found to be primary in early years, with a progressive increase in form color responses. However, there is variation in the progression of color responses with secondary form and those primarily form determined. While the animal content responses remain relatively stable there is evidenced with age a gradual increase in human content responses.

In regard to administrative difficulties, most workers agree that the instructions should be simple and brief. To achieve a more non-verbal approach, Mary Ford (9) utilized a trial blot. Informality, encouragement, and sincerity play an important role in testing children.

This project is primarily an experimental study of the effect of the trial blot administration on child Rorschach responses. In order to eliminate the variability which has been found to influence the test results, certain controls are maintained which are described in the following chapter.

CHAPTER III

PROCEDURE

Description of the test

The Rorschach diagnostic personality test was used in this investigation. The test was designed and standardized by Herman Rorschach during the years 1911 to 1921 in Switzerland (8). The material consists of seven by nine and one-half inch white cards each having a symmetrical inkblot printed on it. The cards are numbered from I through X and presented in order. The first, fourth, fifth, sixth, and seventh are achromatic; the second and third are black and red, the eighth, ninth, and tenth are multi-colored, incorporating bright color and pastel shades. This projective technique serves to reveal the structure of the subject's mind by having him respond to these standard stimuli (5).

The test is administered individually, and consists of three phases. During the first the cards are presented to the subject and he is asked to tell what he sees, what impressions the blot calls to his mind. Responses are recorded verbatim as well as reaction time and total time. Upon completing the performance of all ten cards, the series is repeated and this time the subject is asked to explain what it was that reminded him of his responses, and where on the card the concept was drawn.

The third phase, called testing of the limits, plays a purely qualitative role in the interpretation and is therefore optional. It is important

to the degree-that the subject has been reticent in the performance and the inquiry. Depending upon what may have been neglected, the examiner prods for specific determinants, location categories, and popular responses. The degree of pressure needed is noted.

Although the inkblots themselves are meaningless, the subject's projected concepts are indicative of the workings of his mind (5). The subject's reaction to the cards is said to be similar to the way in which he reacts to his environment; the manner in which he characteristically attacks life's problems. The subject's intellectual capacity, his persistence or drive, degree of maturity, emotional stability, and sociability are revealed (5).

Quantitative interpretations are derived from the pattern of responses. Scoring is done in three main categories, the location of the concept on the card, the determinants which indicate how the concept was formed, and the content or what is seen.

Few studies have investigated the reliability of the Rorschach Test. Troup (10) using the matching technique found the test to be reliable as a whole. Studies based upon comparison of blind diagnosis have yielded the same results. However, Piotrowski states, (25:445) "the reliability and validity of the test are really inseparable and the validity of the test carries with it reliability." Hertz (15:539) maintains that "until a high degree of validity has been established for different groups, the reliability cannot be assumed." While she questions the reliability of the Rorschach with children under ten years of age, due to their inconsistent reactions, she concluded that the same interpretative principles can be applied, since children who require a psychiatric study have been found to produce a disturbed Rorschach.

Description of the population

The children who served as subjects in this investigation were 72 third grade boys and girls selected from four schools. In each of these schools the third grade teachers were asked to fill out a behavior check list which was devised using items chosen from the behavior sheet employed by the Loyola Center for Guidance. Depending upon gravity, the items were checked 0, 1, 2, or 3. Several stop questions were inserted which if answered adversely automatically excluded the child. The total points were arranged in terms of frequency and an advisor's cutting point determined the level of consideration. By this method, it was felt that only normal well-adjusted children were chosen.

The Kuhlmann Anderson Intelligence test was administered by the examiner and two proctors to the third grade. Only those children with IQ's falling within the range of 85-115 were selected for this study. An equal number of boys and girls were then chosen from each school and since two groups were necessary for this study the individuals were matched for sex, and closely as possible for age and intelligence. Group means were tested for significance of difference in age and IQ. On the basis of the above factors, 16 children were chosen from one parish school, 20 children were selected from another parish school, 16 from a public school and 20 from another public school. Thus the sample included an equal selection of children from two parish and two public schools and an equal number of each sex to comprise the control and experimental groups. These schools were located in middle class areas and so it can be assumed that the socio-economic status of the groups is homogeneous.

The thirty-six children placed in the control group would not be given the trial blot in the Rorschach administration. Thirty-six in the experimental group were presented the trial blot. The mean chronological age expressed in months for the first group was 100.53, median 100.67, and standard deviation 2.30. The experimental group yielded a mean chronological age of 100.67, median 101.2, and standard deviation 2.48. The obtained value of t for difference of CA between the two groups is .25. This corresponds to a probability greater than 50 per cent, indicating that the two groups are statistically equated in CA. The mean IQ for the first group is 102.22, median 101.74, and standard deviation 5.52. The mean IQ for the second group was 101.94, median 102.00, and standard deviation 5.48. The t for this factor yields a value of .22, which corresponds to a probability exceeding 50 per cent. Therefore the two groups are statistically equated in terms of intelligence.

Administrative Procedure

The children were taken individually from the class room and examined in a quiet room provided by the school principal. Generally the child had become acquainted with the examiner during the Kuhlmann Anderson testing and sufficient rapport had been established by conversing with the child on the way to the examining room to allow immediate administration of the test.

The testing materials; form for recording responses, pencil, pen, location charts, and stopwatch were on the desk in front of the examiner. The ten Rorschach cards and Ford's trial blot were face down to the right. The trial blot, a symmetrical blot of solid black on white, had been photographed

and mounted on a card to resemble the Rorschach plates.¹ The child was seated to the left of the examiner and was told, "I have some things to show you." The first card or trial blot, depending upon the group, was presented in an upright position and given to the child to hold. The examiner then asked, "What could this be?" If the child hesitated more than ten seconds, the examiner added, "What does it look like to you?" These were usually adequate directions but when the child refused either of the first two cards presented the examiner explained, "Most children see something and I want to know what this might look like to you." When the child had only given one response on the first two cards presented, the examiner said, "Anything else, or can you give me some more." The child was asked to tell the examiner when he was finished with the card.

In this investigation, the inquiry was conducted after it seemed the child was finished with the card. For determining location, the child was told that the examiner wanted to see just what he saw, and asked, "Where is the —, or what made you think of —, or what reminded you of the —, or how could you tell it was a —?"

The children were allowed to turn the cards, and no time limit was required. Reaction and total time for each were recorded but due to the many instances when the child combined the inquiry and performance voluntarily, it was felt that the total time was not accurate and therefore omitted in the summary. Throughout the performance the child was encouraged and praised for

1. See Appendix III, p. 52

his good behavior.

After the child had completed the entire series, all of the cards were spread out on a table and he was then asked to identify the ones that were liked best and least and if possible to give reasons for his choice.

Description of the scoring

Most studies have agreed upon scoring children's records according to Klopfer's adult norms. This investigation likewise follows the tradition. Symbols representative of the location of responses are as follows: (5:60-183)

W	response to the whole blot
W	intended use of the whole blot, but with parts omitted (from two-thirds to whole)
WS	whole blot and white space used
DW	a detail interpreted, with its meaning assigned to the whole blot with justification
D	large usual detail
DS	white space used in addition to D
d	small usual detail
Dd	unusual detail
dd	tiny detail
de	edge detail
di	inside detail
dr	rare detail
S	white space
SD	a detail used in addition to S

Symbols representative of the determinants are as follows:

M	figures in human-like action
FM	animals in animal-like action
m	abstract or inanimate movement
k	shading as three dimensional expanse projected on a two dimensional plane
K	shading as diffusion
FK	shading as three dimensional expanse in vista or perspective
F	form only
Fc	shading as surface appearance or texture, differentiated

c	shading as texture, undifferentiated
C'	achromatic surface color
FC	definite form with bright color
CF	bright color with indefinite form
C	color only

Major symbols representative of the content of responses are as follows:

H	human figures
Hd	parts of human figures, not anatomical
A	animal figures
Ad	parts of living animals.

The responses are scored original (O) if they occur not more than once in one hundred records, or popular (P) which indicates that they are those responses that include a commonly used portion, commonly used determinants, and are acceptable to the clinically normal subject. This investigation omitted the final analysis of original responses due to the lack of adequate norms for children's original responses.

Form accuracy was not scored in the present study, since it was felt that adult standards were not applicable, and standards for children of this age were not yet available. Furthermore, these children frequently produce rather vague responses which they are unable to explain in detail because of their lack of experience, and they may give the impression of using poor form. In general, the form level of this group appeared to be consistently high, compared with reports of lower age levels, and responses of doubtful accuracy were rare.

Since this present investigation has the immediate purpose of determining the effect of the trial blot, the quantitative results obtained from each group are presented in terms of the mean and standard deviation for frequencies of each factor. These results will then be compared by chi square for significant difference between the control and experimental groups.

CHAPTER IV

ANALYSIS OF THE DATA

The first purpose of this chapter is to find what statistical differences, as measured by the Rorschach categories, exist between the control and experimental groups used in the present study.

The t test for significance of differences between age and IQ of the two groups was computed, first within each school and then as a total. This was intended as a means of determining whether the two groups consisting of thirty-six children in each are statistically equated in terms of age and intelligence factors.

In a study of this kind, a difference between groups at or below the five per cent level of confidence is generally regarded as statistically reliable. Since there are seventy degrees of freedom in the present data, a t of 2.00 is required to reject the null hypothesis at the five per cent level of confidence; a t of 2.65 is necessary for the 1 per cent level.

The results, as shown in Table I, indicate that the differences obtained for both age and intelligence are above the fifty per cent level of confidence and so it can safely be assumed that the two groups do not differ significantly and are therefore homogeneous.

The data gained from the records of these two groups of children are now analyzed separately in terms of frequency of occurrence of the various

TABLE I

MEANS AND MEASURE OF DIFFERENCES FOR AGE
AND INTELLIGENCE BETWEEN THE CONTROL
AND EXPERIMENTAL GROUPS

	Mean		<u>t</u>	P
	Control	Experimental		
Age:				
Parish A	99.60	99.40	.206	
Parish B	101.62	101.12	.347	
Public C	101.13	100.50	.543	
Public D	100.60	101.20	.571	
Total	100.67	100.53	.25	> .50
IQ:				
Parish A	100.30	104.60	.280	
Parish B	100.75	100.88	.041	
Public C	100.00	99.87	.056	
Public D	101.20	100.30	.342	
Total	101.94	102.22	.22	> .50

Rorschach scoring categories. The mean and standard deviations are shown in the several succeeding tables.

Table II includes the summary of the statistical measures calculated for the number of responses, number and percentage of chosen location areas. The percentages were first separately calculated for each child. These results were averaged in order to determine the mean percentage for the group.

TABLE II

MEANS, MEDIANS, AND STANDARD DEVIATIONS OF
PRODUCTIVITY AND RORSCHACH LOCATION AREAS
FOR THE CONTROL AND EXPERIMENTAL GROUPS

Categories	Control (N 36)			Experimental (N 36)		
	Mean	Median	SD	Mean	Median	SD
R	18.00	18.50	7.44	16.59	14.50	8.10
W	3.36	3.70	2.30	3.39	4.00	2.10
W'	1.53	1.70	1.45	1.22	1.50	1.20
W%	33.66	36.50	23.45	31.34	30.50	21.68
D	8.62	8.75	4.24	8.34	7.70	5.04
D%	46.94	50.50	16.25	48.67	48.50	17.15
d	1.94	1.20	2.98	1.84	1.06	2.16
d%	7.15	7.50	11.75	7.03	5.05	8.83
Dd	2.22	1.06	3.62	1.69	1.70	2.02
Dd%	10.02	9.50	11.27	11.15	8.50	8.60
S	0.28	0.67	0.51	0.36	0.72	0.58
S%	1.23		2.15	1.60		3.20

The mean and standard deviation of the Rorschach determinants for the two groups are reported in Table III. Those separate categories which are omitted were not found in the records of the children used in this study. Animal, human content responses and remaining selected Rorschach categories are shown in Table IV.

The difference between groups were then tested by chi square as shown in Tables V and VI. In those categories which were infrequently used by the children in this study a single response was taken as a cutting point

TABLE III

MEANS, MEDIANS, AND STANDARD DEVIATIONS
OF RORSCHACH DETERMINANTS FOR THE TWO
GROUPS IN THE PRESENT STUDY

Categories	Control (N 36)			Experimental (N 36)		
	Mean	Median	SD	Mean	Median	SD
M	.36	.67	.71	.56	.72	1.12
FM	1.06	1.13	1.27	1.14	1.33	1.27
Fm	.33	.64	.70	.28	.62	.65
mF	.06	.53	.24	.11	.56	.33
FK	.28	.67	.51	.36	.70	.63
KF	.17	.58	.45	.11	.55	.39
Fk	.03	.51	.17	.03	.51	.17
F	11.84	11.50	6.56	10.72	10.07	5.78
F%	65.03	67.50	16.94	62.41	63.50	26.90
Fc	.89	1.29	.88	.47	.72	.89
cF	.00	.00	.00	.03	.51	.17
FC	1.06	1.14	1.31	.89	.82	1.63
C'F	.08	.77	.48	.03	.51	.17
FC	1.00	1.05	1.33	.92	1.28	.93
CF	.61	.75	.98	.44	.64	1.19
F/C	.06	.77	.98	.14	.54	.54
C	.03	.51	.17	.14	.56	.42

for testing the significance between groups. When possible an approximate quantity suggested by Rorschach workers was chosen. In the case of F% a point was chosen approximately midway between the mean F% reported by Ames and Ledwith. Similar procedure was followed in selecting a cutting point for A%. Since Ledwith fails to report the mean number of animal content responses, Ames criteria were used.

TABLE IV

MEANS, MEDIANS, AND STANDARD DEVIATIONS OF RORSCHACH
CONTENT CATEGORIES AND SUPPLEMENTARY
MEASURES FOR THE TWO GROUPS

Categories	Control (N 36)			Experimental (N 36)		
	Mean	Median	SD	Mean	Median	SD
A	7.00	6.92	3.64	7.12	6.60	3.54
Ad	2.56	1.30	3.42	1.72	1.77	1.67
A%	52.94	51.50	18.95	56.44	53.50	20.20
H	1.08	1.35	1.19	1.19	1.14	1.47
Hd	1.17	.86	2.42	1.14	.95	1.63
P	2.81	3.50	1.05	2.64	3.50	1.03
% 8,9,10	38.20	35.00	10.12	39.50	33.75	7.04
Ach.	17.10"	15.70"	12.00	18.94"	17.70"	13.6
Chr.	17.81"	17.10"	11.36	16.20"	13.50"	10.68

The mean number of responses reported by these two workers were averaged to determine the cutting point for this study. Since the percentage of this group's location areas closely corresponds to Ledwith's findings, the means of her group were chosen in most instances.

Of all the categories tested in this analysis, only Fc yields a chi square corresponding to a difference between the control and experimental groups statistically reliable at the 1 per cent level of confidence. In itself, one significant difference among so many categories tested tends to lose

TABLE V

INCIDENCE OF THE CONTROL AND EXPERIMENTAL
GROUPS COMPARED FOR DIFFERENCE ON
SELECTED RORSCHACH CATEGORIES

Category and Arbitrary Cutting Point	Control (N 36)	Experimental (N 36)	Chi square*	P
F (8 or more)	25	27	.069	< .80
F% (54 or more)	29	25	.666	< .50
M (1 or more)	9	11	.069	< .80
FM (1 or more)	19	21	.05	> .80
Fm (1 or more)	8	7	.000	> .99
mF (1 or more)	2	4	.182	< .70
FK (1 or more)	9	10	.000	> .99
KF (1 or more)	5	3	.141	> .70
Fk (1 or more)	1	1	.000	> .99
Fc (1 or more)	23	11	6.743	< .01
FC' (1 or more)	19	14	.859	< .50
FC (1 or more)	16	22	1.394	< .30
C (1 or more)	1	4	.859	< .50
A (7 or more)	17	20	.221	< .70
A% (50 or more)	22	19	.226	< .70
H (2 or more)	12	9	.269	< .70
P (3 or more)	21	18	.178	< .70

*Throughout this study, Yates' correction for continuity has been included in the formula for chi square. See McNemar (6:207).

much of its significance. Therefore, it seems reasonable to assume that this difference was only due to chance, and the two groups may be considered homogenous in the areas tested.

The conclusion justified by the data seems to be that the trial blot

TABLE VI

CONTROL AND EXPERIMENTAL GROUPS COMPARED FOR RESPONSES,
LOCATION, W:M RATIO, PERCENTAGE OF RESPONSES
TO LAST THREE CARDS AND ERLEBNISTYP

Category and Arbitrary Cutting Points	Control (N 36)	Experimental (N 36)	Chi square	P
R: (17 or more)	20	13	2.404	> .10
W: (36% or more)	15	14	.000	> .99
D: (59% or more)	10	13	.286	> .70
d: (3% or more)	14	20	1.083	> .30
Dd: (4% or more)	25	28	.286	> .70
S: (1% or more)	10	11	.000	> .99
W:M (3W more than M)	25	29	.666	< .50
% 8,9,10 (35% or more)	25	21	.541	< .50
Sum C (1 or more)	18	19	.000	> .99
Extraversive				
M: Sum C	23	17	1.406	< .50
FM/m:Fc/c/C:	10	19	3.659	< .10
Ambisqual				
M: Sum C	0	2	.000	> .99
FM/m:Fc/c/C:	4	3	.000	> .99
Coartive				
M: Sum C	8	11	.286	< .70
FM/m:Fc/c/C:	9	3	2.500	< .10
Introversive				
M: Sum C	5	6	.000	> .99
FM/m:Fc/c/C:	13	11	.063	< .90

does not serve to discriminate between the control and experimental groups when the scores are analyzed according to the experimental design of the present investigation.

It seems valid now to merge the two groups and so secure a larger sample. The means for the total groups have been calculated as shown in Table VII, in an effort to compare these findings with those of Ledwith and Ames in their studies of the Rorschach responses at the eight year level.

These findings will now be discussed in light of those reported by Ames and Ledwith. While their investigations involved a normative study with eight-year-old children, the different factors of selection and control can attribute to the wide differences found between the three studies. Ames' selection of children was reported as having superior or above average intelligence. However, in many instances intelligence ratings were not available, and a rough estimate was then determined by the socio-economic status. Therefore it seems that this group is lacking in adequate control factors. Ledwith's group of eight year olds had previously been tested with the Rorschach annually from the sixth year level. Frequent repetition of the test may have unknown effects.

In this study the area of the blot chosen presents wide differences in comparison to the results reported by Ames. Her findings of the eight-year-olds revealed that over fifty per cent of the children used whole responses. This study revealed that children more easily used large common details, the mean per cent 48. This substantiates the findings of Ledwith whose group too revealed a preponderance of usual detail. However, a nine

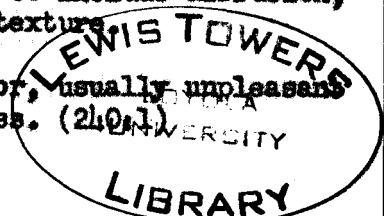
TABLE VII

MEANS FOR EIGHT-YEAR-OLDS REPORTED BY LEDWITH,
AMES, AND THE PRESENT STUDY COMPARED
TO KLOPPER'S ADULT CRITERIA

Categories	Mean for eight-year-olds			Klopper (adult)
	Ledwith (N 75)	Ames (N 50)	Present study (N 72)	
R	18.40	15.86	17.30	20-40
W%	36.00	55.00	32.50	20-30
D%	59.00	37.00	48.30	45-55
d%	3.10		7.09	5-15
Dd%	1.00	7.00	10.58	(less than 10
S%	.40		1.41)
M	1.70	1.34	.46	3 or more
FM	4.30	1.54	1.10	less than M
m	.20	.40	.40	less than 3
FK	.20	a	.32	(less than 3
KF	.20		.14)
Fk	.00		.03	
F	8.80		11.28	
F%	48.00	58.00	63.50	20-50
c	.30		.68	cc' less than
C'	.20	b	1.50	2 (FC/CF/C)
FC	1.10	.54	1.06	More than CF/C
CF	1.20	.90	.53	less than FC
C	.20	.44	.04	rare
Sum C			1.20	
A		7.28	7.06	
Ad			2.14	
H		2.60	1.14	
Hd			1.16	
A%	57.50	45.00	54.22	20-55
P	4.80		2.73	5 out of 10

a Not given as a separate category. Ames scores F(C) to include diffusion, light shading, differentiation within the blot and texture.

b Ames scores Clob to include the use of black as color, usually unpleasant diffuse impression of blot stemming from its darkness. (240.1)



per cent difference is found between the mean number of rare details reported in this study and those findings of Ledwith.

The mean per cent of children in this study using concepts arrived at by pure form closely corresponds with both Ames' and Ledwith's reports. The three studies conclude that nearly half of the children used pure form responses.

The mean form-color responses of Ledwith's group and the present study compare favorably, whereas Ames reports a considerably smaller mean. This study departs from the other two groups in reporting an excess of form-color responses over color-form responses. Pure color responses were rarely found in the three studies.

Since Ames used different scoring for shading responses, it is difficult to compare these factors. She introduces F(C) to include shading as diffusion, surface appearance, and texture. Clob is scored to indicate use of black as color, usually an unpleasant diffuse impression of the blot stemming from its darkness. Achromatic surface color was more readily used by the children in this study. Shading as diffusion and vista responses yield means comparable to Ledwith's findings.

Human and animal movement was observed less frequently by the children in this study than by those in both Ames' and Ledwith's groups. However, there was only a slight difference found between this study and Ames' report of animal movement responses, the former reporting a mean of 1.10 and the latter 1.54. Ledwith's group greatly surpasses these reports. The results of all three studies substantiate one another in that they report infrequent use

of inanimate movement, and a preponderance of animal movement over human movement.

The mean animal per cent reported for this group was 54. Ames reports 45 per cent and Ledwith 57.5. While Ledwith neglects to give her findings on human content responses, the findings of this study and Ames' are consistent. Both studies likewise report a great excess of animal content responses over human content responses.

The mean number of responses obtained in each of the studies show comparably close results. The author reports a mean of 17.3, Ames reports 15.86 and Ledwith 18.4. This would seem to indicate that the productivity of the eight year old children is fairly stable.

CHAPTER V

SUMMARY AND CONCLUSIONS

Rorschach literature reveals the currently rising interest in extending the use of this instrument to include interpretative value with children. The pioneer workers who first sought this venture encountered many difficulties in regard to administration procedures. While it was generally agreed that adult instructions were not adequate in gaining a child's confidence and understanding, departures were made from the standard administration and many workers selected various means which they felt promoted enrichment of the child's comprehension and test results. However, since these methods are in some respects at variance with the standard procedure, no attempt has been made to determine the effect. It has been the purpose of this study to make such an investigation. Specifically this experiment concerns itself with the trial blot method which is introduced preliminary to the administration of the ten standard Rorschach cards.

Such a method was first inaugurated by Hertz (14) and later expanded by Ford (9) who devised one blot which she used for all children. This identical blot was photographed and mounted on a standard sized card and used in this study. Such a plan as proposed in this investigation necessitates two groups of children; one experimental and one control. In order to test validly a difference, it is essential to equate the two groups for age

and intelligence. Since early investigations revealed that many factors affect Rorschach scores, it was decided to limit as far as possible variables and so restrict the population according to age, intelligence, normalcy, and socio-economic status.

Four middle class area schools were chosen, two parish and two public, with equal number of boys and girls selected in each. Behavior was evaluated by a check list presented to the teachers and behavior problems were thus eliminated. The children were given the Kuhlmann Anderson Intelligence Test and only those with IQ's falling within the middle range, 85-115, were selected.

In all, seventy-two children were selected on the basis of the preceding requirements and equally distributed into the two groups. Within each school the children were matched for age, sex, and intelligence. Mean age and IQ were tested for difference by computing t tests. The t value obtained between the two groups for age was .25 and for IQ .22, thus indicating that the groups were statistically equated in terms of these factors. The thirty-six children in the experimental group were first presented the trial blot, and the thirty-six in the control group were given the same instructions without the trial blot. Simplified instructions were adopted from various workers. The inquiry was conducted immediately after each card, rotation was permitted, and time was not restricted. The children were encouraged for more than one response on the first two cards presented. The scoring was according to Klopfer.

The various quantitative results obtained from the control and experimental groups were analyzed in terms of mean frequency for the selected

Rorschach categories and standard deviations were calculated. In order to determine the existence of a difference between the results yielded from the trial blot administration, the two groups were tested by means of chi square.

Of all the categories selected and tested, only F_c produced a significant difference at the one per cent level of confidence. In itself, one significant difference among so many categories tested tends to lose much of its significance. Therefore, it seems reasonable to believe that this difference was only due to chance.

Thus the conclusion warranted by the data collected in this study is that the trial blot used with the experimental group is not a differentiating factor between the control group when the scores are analyzed according to the experimental design of the investigation.

Returning to the discussion of the early workers' experience with children's Rorschach, other difficulties were encountered. Attempts to interpret children's records in the light of adult norms proved unsatisfactory. The rapidly growing young minds possibly accounted for the wide variations of Rorschach patterns within age groups. Therefore, criteria for the normal child at different age levels must be established before the Rorschach can be effectively used to evaluate a child's personality. This investigation further seeks to contribute to the data thus far accumulated for the eight-year-olds.

Since the two groups in this study yielded no significant difference, the results were merged and means calculated for the total population in terms of frequency of the selected categories. An effort was then made to

compare these findings to those normative studies of eight-year-old children conducted by Ames and Ledwith. Since the three studies were not comparable in many respects, differences which occurred could be expected. Most of the children in Ames' group were of superior intelligence, and Ledwith's was a longitudinal extension of previous Rorschachs administered at their sixth and seventh years.

According to the results of this study it may be characteristic for the eight-year-old child to give approximately 17 responses. This conclusion is substantiated by the findings of Ledwith and Ames reported for their group of eight-year-old children.

In reference to the manner of approach, nearly half the children in this study reacted predominantly to the large detail rather than to the blot as a whole. The mean percentage for large usual details was 48, and the mean for the percentage of whole responses was 32.5. These results are at variance with Ames' findings but agree with Ledwith in reporting an emphasis on large common details. In this study the mean percentage of rare detail locations outnumbers the small usual detail.

In regard to determinants used, this study reports a preponderance of pure form responses. The mean form percentage was 63.5. Although this surpasses the reports of the other studies, it tends to confirm that form per cent can be expected to approximate 50%.

According to the findings of the three studies, the eight-year-old will characteristically reveal an excess of animal movement over human movement responses. This study reports, in contrast to the other studies, an

excess of form-color responses over color-form responses. The mean for form-color being 1.06, and color-form .53. Pure color responses can rarely be expected to appear in the records of the eight-year-old.

Use of achromatic color was made more frequently with the children in this investigation than the other studies. There is agreement in reporting a scattered use of the shading determinants.

According to these studies it can be expected to find in the record of the eight-year-old, a predominance of animal content responses. While human content responses occur frequently at this level, the former always markedly outnumbers the latter. The animal per cent can be expected to approximate 50.

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APPENDIX I

SAMPLE RECORD OF AN EIGHT YEAR OLD CONTROL GROUP BOY

Performance	Inquiry	Scoring
I. 3"		
1. A butterfly nothing else 35"	1. Here's the wings, this here looks like maybe the nose, and maybe this is a design in here (white space only) cause they have pretty designs on them.	W, S, F, A, P
II. 5"		
1. A rooster or a turkey, I think that's all 40"	2. Teacher said when the turkey is real mad his head is real red, and this is red. Here is the turkey, here is his red head, and his mouth is opening, two beaks, one is here and one down there, it has already opened.	W FC, FM A
III. 10"		
1. A clown maybe	1. Two clowns looking at each other, they are standing funny, clowns do funny things, here is his head, neck, body, legs which are bending down this way and their arms and mouth.	✓ M H P
2. Some kind of a basket there. 45"	2. Round thing down here looks like a basket, they sometimes are shaped like this.	D F obj

IV. 10"

- | | | |
|---|--|--------|
| 1. This looks like big feet. | 1. Here is the heels of the shoes, and here is the toe and the foot. | D F Hd |
| 2. A duck's head, that's the long beak sticking down there. | 2. It's shaped like a duck's head or a goose's, long neck and here is his head and beak. | D F Ad |

V. 5"

- | | | |
|--------------------------------------|--|---------|
| 1. That looks like a real butterfly. | 1. Here are the wings on both sides, and the head of the butterfly and here is his body. | W F A P |
|--------------------------------------|--|---------|

15"

VI. 5"

- | | | |
|---------------------------|---|-------|
| 1. That looks like a fox. | 1. Here are the four legs, and the body and the head, and they have things like whiskers here, and this is the mouth. | W F A |
|---------------------------|---|-------|

25"

VII. 4"

- | | | |
|---|---|-----------------|
| 1. Maybe a rabbit, a little rabbit here and a little rabbit there, it's jumping on maybe a little rocker. | 1. I know it's a rabbit because it has the ears and the tail, this is a rocker, and the feet are on the rocker, and it looks like the rocker is moving, the other rabbit is over here, he is standing on the other end of the rocker. (Jumping?) Yeah, he is jumping on the ends. | W FM, Fm A, obj |
|---|---|-----------------|

50"

VIII. 20"

- | | | |
|--|--|----------|
| 1. This looks like some kind of an animal. | 1. It's walking, this part is the head, and the body and the legs. | D FM A P |
|--|--|----------|

- | | | | | |
|----|---|----|---|-----------|
| 2. | This looks like an ice cream cone. | 2. | Orange ice cream, and the pink is the cone, just looks like ice cream. | D CF Food |
| 3. | This looks like the inside of a turkey. | 3. | Everybody has ribs like this, and these little things look like bones, here is the middle part, and these little things are sticking out, like bones. | D F At |

1' 20"

IX. 10"

- | | | | | |
|----|--|----|---|---------|
| 1. | This looks like a stand. | 1. | Sometimes a stand is shaped like this, like a box like. | D F obj |
| 2. | This looks like a polar bear. | 2. | This is the head, and this is the body and here is the legs, aren't polar bears green sometimes, they are lighter colors than other bears, and this is a light green. | D FC A |
| 3. | This looks like a clown going to scare somebody. | 3. | Here's the clown and here's his pointed hat, and he has a funny nose, he looks like he has a sword in his hand and he looks so funny like he is going to scare somebody, he maybe is going to lift the sword. | D F M H |

45"

X. 10"

- | | | | | |
|----|------------------------------------|----|--|--------|
| 1. | This looks like maybe a wish bone. | 1. | Wish bones have two big things like this and a point at the top like this. | D F at |
| 2. | This looks like a big monster. | 2. | It's a big caterpillar or something, looks like it's crawling somewhere, and the caterpillar has a lot of legs here, and this is the head. | D FM A |

3. Spiders, house here, don't know what the others are. 1: 15"
3. Spiders' houses are round like this and the spider's house feels funny, and this looks like it feels funny (touches the card) where you touch the card. D Fc obj

Best X because of the colors.

Least IV so black and dark.

SAMPLE RECORD OF AN EIGHT YEAR OLD EXPERIMENTAL GROUP GIRL

T.B. 25"

- | | | |
|--|--|--------|
| 1. Looks like a bear with four legs and no head. | 1. The body, legs, and it's a bear because it has four legs. | W F A |
| 2. Two heads.
1'15". | 2. The nose, eyes, and the ears. | D F Hd |

I. 5"

- | | | |
|--|---|------------|
| 1. Looks like an animal with four eyes, and he is flying.
45" | 1. The four eyes (white space) the wings are spread out, and the head and feelers are up here, here is one leg. | W S FM A P |
|--|---|------------|

II. 15"

- | | | |
|---|---|---------------------|
| 1. Looks like two ghosts flying over a castle.
55" | 1. Here are the ghosts up here, looks like they are flying, the head and the bodies, over this castle. The ghosts are ghosts because it don't look like an animal. The castle has a point at top, and the ghosts are over the castle up in the air. | Dr M FK (H),
obj |
|---|---|---------------------|

III. 5"

- | | | |
|-------------------------------|--|-------|
| 1. Two lambs. | 1. The feet are down here, and the legs and the head and nose here. | W F A |
| 2. Horses around here.
40" | 2. The head and long neck and this little thing is the tail and four legs. | D F A |

IV. 18"

1. Looks like a vampire bat.

35"

1. The mouth which could kill somebody, like vampires have, the two feelers, and the body and wings.

W F A

V. 2"

1. Butterfly.

15"

1. Two feelers, and the body, feet, wings are torn here, (white space) you can tell by the edges.

W S F A P

VI. 20"

1. Indian writing.

45"

1. Probably an Indian is warning somebody and this is writing, smoke signals, smoke looks like this up at top and you see it's going up in the air. Q. This part here, it's just the smoke going up.

D KF MF
smoke

VII. 13"

1. Looks like smoke from a fire.

30"

1. Just looks like smoke, and it kind of looks like this stuff in here is funny faces like you see smoke makes. Q. It's the black in here that makes it different and the funny things, Q. just designs I guess.

W KF C'F
smoke

VIII. 15"

1. Two lions.

40"

1. The lions are walking with their head down. Q. The feet and the body.

D FM A P

IX. 10"

1. Looks like a blood vein.

30"

1. The blood is coming down here and goes up here, blood is orange and red like this, it changes to red down here, cause it gets to the bottom of the vein, it's flowing out down here, and the pipe is this middle thing down here. Q. Just this top, this line down here, and the red down here.

Dr CF mF
Blood

X. 10"

1. These look like caterpillars.

40"

1. They are green and caterpillars are always green and they have the body like a caterpillar.

D FC A P

Card like best. IX and X Caterpillars can't hurt you, and blood on this card cause you always need blood to live.

Least.

T.B. because the bear looks funny with no head.

APPENDIX II

BEHAVIOR CHECK LIST

BEHAVIOR SYMPTOMS

If any of the following items are applicable to this child, indicate with a number 1 if it is a mild problem, 2 if moderate, and 3 if severe. Leave blank or mark 0 if an area shows no difficulty.

<u> </u> Sensitiveness	<u> </u> Failure to adjust with other children
<u> </u> Tendency to worry	<u> </u> Unmanageable, defiant
<u> </u> Depressed attitude	<u> </u> Fighting, bullying
<u> </u> Daydreaming	<u> </u> Stealing
<u> </u> Shyness, timidity	<u> </u> Truancy
<u> </u> Seclusiveness	<u> </u> Acts of violence

Any unusual behavior not included above that should be noted: _____

Is this child's behavior generally acceptable to ordinary school standards?

Yes No (circle)

From your experience with this child, is he so markedly aggressive as to constitute serious behavior problems, Yes No (circle)
or so markedly withdrawn as to occasion serious concern to teachers? Yes No (circle)

APPENDIX III
FORD'S TRIAL ELOT



APPROVAL SHEET

The thesis submitted by Joan Carroll Baldwin 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.

June 12, 1954
Date

Charles F. Day, Jr.
Signature of Adviser