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RORSCHACH MOVEMENT RESPONSES OF PSYCHONEUROTIC PATIENTS:

A NORMATIVE STUDY

by

Margaret Ann Jacobs

A Thesis Submitted to the Faculty of the Graduate School

of Loyola University in Partial Fulfillment of

the Requirements for the Degree of

Master of Arts

June

1960

## LIFE

Margaret Ann Jacobs was born in Warrenton, Virginia, June 18, 1936.

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## CHAPTER I

### STATEMENT OF THE PROBLEM

The purpose of this thesis is to provide normative data on Rorschach movement responses for a sample of psychoneurotic patients. The systematic classification employed permits an investigation of the many dimensions of each type of movement which is employed herein.

It is generally agreed that the human movement response (M) is Rorschach's most original contribution to his method of personality study and several later "perceptanalytic" investigators have stressed the importance of animal (FM) and inanimate (m) movement. However, in view of the wide application of the Rorschach test, it is difficult to justify the lack of interest in publishing norms for one of its most important scoring categories. The meager number of normative studies which have appeared have usually employed a normal or unidentified sample and to this writer's knowledge there are none which have appeared dealing with the movement response alone.

The need for this type of work is further emphasized when the multitude of research which is reported on the theoretical and interpretative aspects of the movement response is contrasted with the scarcity of normative work. While interesting and informative as this former type of research may be, basic knowledge as to the number of movement

responses to expect, the type of movement seen most often for each card, the kind of movement elicited, the predominant age level and projected sex of the concept are important factors to consider before placing interpretative significance upon a particular movement response. This point is made while taking cognizance of the fact that sample norms lose their individuality and must not be used in a "cook-book" fashion for a given individual Rorschach record; also, that a particular Rorschach variable is not strictly independent of all other variables in a record. However, even in view of these considerations, normative data is of great value and has been sorely neglected on Rorschach variables, particularly for psychiatric patients.

The initial purpose which this thesis attempts to fulfill is the reporting of normative data on a sample of psychoneurotic patients for the Rorschach movement response which includes a number of important dimensions. Furthermore, the collected data will provide material for future research possibilities.

## CHAPTER II

### SURVEY OF THE LITERATURE

The literature directly related to the present thesis, i.e., normative work involving Rorschach movement responses, is very scarce; and that done with a psychiatric group such as psychoneurotics practically non-existent. However, were one to do a survey of all the literature which has appeared on the many facets of movement responses, particularly the human movement response, a volume would easily result. This situation exemplifies the tremendous importance of, and interest in, the Rorschach movement responses without the concomitant consideration that should be paid to normative work.

The subsequent review will cover the trends in the literature under four areas, all of which have relevance to the present thesis. The topics under discussion are as follows:

- Defining and scoring movement responses
- Theoretical meaning attached to movement responses
- Results from normative studies
- Methodological problems

## Defining and Scoring Movement Responses

Rorschach defined the movement response as follows:

Movement Responses are those interpretations which are determined by form perceptions plus kinaesthetic factors. The subject imagines the object interpreted to be in motion....One should not be misled, however, into considering each movement described or even demonstrated by the subject as indicating that the answer is kinaesthetically determined....the indication of motion is often only a rhetorical embellishment of the answer, a secondary association....The following may be taken as a rule: answers may be considered as kinaesthetically determined practically only when human beings or animals capable of motion similar to that of human beings (monkeys, bears) are seen in the figures (Rorschach, 1942, p. 25).

While this basic definition of the movement response is followed by the majority of those who employ Rorschach's diagnostic method, various "perceptanalytic" workers have attempted to clarify the system employed for scoring these responses. Several authors (Beck, 1944; Phillips and Smith, 1953) point out that it does not require a vigorous activity to qualify the response as M, i.e., in the action the protagonist may be doing something, having something done to him (passive M), or may be in a pose. Phillips and Smith (1953) add that it is difficult to determine whether a movement percept is "primary" or "secondary" or whether it is truly kinaesthetically determined and therefore score movement only when it is verbalized by the subject.

Piotrowski (1957) stresses the desirability of scoring M accurately since the number of them in most Rorschach records are relatively few. He feels that the reason for difficulty in scoring lies in the incompleteness of Rorschach's technical definition of the M, and continues to say that the introduction of movement responses other than the human movements,

viz., the animal and the inanimate movements, was a step toward making the scoring of the M more reliable.

Klopfer, Ainsworth, Klopfer, and Holt (1954) define the movement response as "those where the subject has read into the static ink blots some kind of action, movement, expression, posture or life" ( p. 100). Their subclassification of human movement includes kinesthetic qualities in human concepts and human-like movement in animals. Since the scoring system used in the present thesis follows closely that outlined by these authors, their rules are presented fully in Appendix I, pp. 61-62.

Rorschach (1942) stated that movement interpretations in animal forms and inanimate objects were not true movement responses. However, he did speak of nonhuman movements as "F tending toward M" and treated them as undeveloped or potential M but assigned no specific meaning to them. Schachtel (1950) follows this view closely and assigns Mt (movement tendencies) to nonhuman movement. However, Klopfer and Sender (1936) originated the classification for scoring animal movement (FM) which involves a projection of movement into animals that is of an animal-like nature. The scoring of these responses is supported by Phillips and Smith (1953) and Piotrowski (1957), although they have modified the theoretical meaning attached to these concepts.

In regard to inanimate movement (m), Klopfer et al. (1954) includes abstract as well as inanimate movement, whereas Piotrowski (1957) and Schachtel (1950) restrict "m" to inanimate movement only.

Although Hertzman and Pearce (1947) state that standards for scoring

human movement inevitably vary between different investigators with respect to marginal responses, there is "by and large...a high degree of agreement" (Hertzman and Pearce, 1947, p. 413). On the other hand, another study asserts that, "There is little agreement in scoring movement determinants<sup>1</sup> imposed by the subject on the Rorschach ink blots" (Allen, Ray and Poole, 1953, p. 195).

#### Theoretical Meaning Attached to Movement Responses

Rorschach (1942) viewed M as a multidimensional concept and posited several interpretations for this response. While meaning is attributed to M as a single variable, he based his analysis upon the relationship between the movement response and color response (C). The following six interpretations of M and the experience types are cited by Rorschach (1942): Intelligence, Creativity, Suggestibility, Emotional Stability, Rapport, and Empathy. Most perceptanalytic investigators (Beck, 1945; Klopfer et al., 1954; Phillips and Smith, 1953; Piotrowski, 1957; Schachtel, 1950) agree that the human movement response measures these particular aspects of personality, although they have modified and expanded their interpretations. Kornreich (1953) presents some of these investigators' statements concerning the theoretical meanings ascribed to the human movement response and discusses various findings reported by research workers on this topic.

Although it has been accepted, in general, that the M responses reveal the attitudes a person has toward others in his environment, the question

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<sup>1</sup>Italics not in the original.

arises as to how these attitudes are expressed. For example, Rorschach stated:

...it is instructive to examine the movement answers...to see whether they indicate flexion or extension. Subjects who usually see extension movements are fundamentally different from those who see only bent, burdened or twisted figures.... Subjects who interpret extension kinaesthesias are active individuals with strong drives toward importance and activity although they frequently show neurotic inhibitions. Those who see flexion kinaesthesias are passive, resigned, neurasthenic individuals....(Rorschach, 1942, p. 29).

Piotrowski (1957) and Phillips and Smith (1953) have expressed the view that the attitude of the M response is reflected directly in overt behavior, i.e. in the extra-Rorschach situation. On the other hand, there are those who stand in opposition to this view. Beck (1945) feels that since M represents one's unfulfilled wishes it is never expressed in a person's behavior. Similarly, Schachtel (1950) states that the strivings expressed in kinesthetic percepts are dynamically important, but that this does not mean that they guide purposeful behavior. In a study reported by Mirin (1955), the author states that his results support the hypothesis that the quality of the M is reflected in social role taking behavior when the person is ego involved in the social situation.

In conclusion, however, the review of the literature on the various theoretical meanings regarding M presents a discouraging picture. As King (1958), who did an exhaustive and critical survey of Rorschach validation studies, states:

...in approximately a third of the studies dealing with intelligence no relationship was found between M and various

measures of intellectual ability. Significant correlations, when obtained were usually quite small. If the variance contributed by R had been accounted for in all the statistical analyses, the correlations would undoubtedly have been even smaller, and some reduced to insignificance. The validation studies pertaining to creativity and suggestibility have produced equally inconsistent results. None of the other interpretations of M, as formulated by Rorschach, have received direct experimental attention. The latter situation is somewhat understandable if the rather elusive terminology used in the definitions is considered. The conclusion that one is forced to draw is that the validity and, hence, usefulness of these six interpretations of M are certainly questionable. (King, 1958, p. 2).

In regard to animal movement (FM), Piotrowski (1957) feels that it indicates the subject's roles in life which were prominent in the S's past, which influence overt behavior only in states of lowered integration and finally, which denote the approximate degree of physical buoyancy. Phillips and Smith (1953) and Klopfer et al. (1954) stress the importance of interpreting FM in relation to M. The latter authors state that animal movement differs from human movement in that FM requires less intellectual differentiation and does not imply the empathy suggested by the perception of human figures. From this, the following hypothesis is presented: "FM responses indicate an awareness of impulses to immediate gratification, which...tend to be impulses regarding which the person often lacks insight, understanding, and acceptance" (Klopfer et al., 1954, p. 265).

The definitions and clinical significance of the "a" movement response are ambiguous and poorly exemplified. The meanings generally discussed are that inanimate movement represents an awareness of forces outside the control of the subject which threaten the integrity of his



personality organization (Klopfer et al., 1954) or indicate prototypal roles which are unrealizable (Piotrowski, 1957) and thus, "m" is generally said to represent an element of frustration and tension within the individual.

Little research has appeared in the literature dealing with the animal and inanimate movement responses other than that done by those authors who score these concepts and assign theoretical meanings to them.

#### Normative Work on the Rorschach Movement Responses

As has been stated previously, there is little normative data which has appeared in the literature, and the present author could find none which has concentrated on movement responses alone. A statement which Cass and McReynolds (1951) make in the introduction to their normative study of a normal sample is appropos here:

The present status of Rorschach norms leaves much to be desired. To the best of our knowledge, statistical summaries of means, standard deviations, and distribution shapes for the chief scoring categories are not available for the major population groups. Our survey failed to reveal a single study which reported such minimal statistical data, based on a sizable normal adult sample, for the major scoring categories. [Since this statement was made, there has appeared Beck's paper which is a statement of norms on a normal sample according to his system of scoring.] There is no particular lack in the number of studies bearing upon or discussing norms. The wide variety of scoring systems represented, the dearth of such basic values as standard deviations, the incomplete description of samples studied, and the striking omission of data for many scoring categories make it impossible to combine the results of published material so as to obtain adequate norms (Cass and McReynolds, 1951, p. 179).

Neff and Glaser (1954) present normative data on a variety of Rorschach variables for 50 normals, 41 neurotics and 9 psychotics. Beck's

scoring system was employed. The mean M for the normal group was 5.8 (S.D., 4.3); for the neurotics, 4.9 (S.D., 4.5); for the psychotics, 1.7 (S.D., 1.5); and for the total sample, 5.1 (S.D., 4.8). The average number of responses (R) for the normals was 42.0 (S.D., 22.0); neurotics, 40.9 (S.D., 26.2); psychotics, 37.6 (S.D., 25.5); and total sample, 41.2 (S.D., 24.2). Neff and Glaser point out that their cases are not clinic or hospital patients and therefore, their neurotics may be regarded as lying toward the healthier area of their respective ranges. The authors conclude, however, that the subjects diagnosed as neurotic, as a group, prove to be slightly less productive than normals and to produce fewer movement responses.

A section of a study executed by Rust (1948) includes a comparison of movement responses of normals, neurotics, and schizophrenics. In general, he found that the tendency to report movement is impaired in schizophrenic and neurotic patients, with the schizophrenic differing more widely than the neurotic from the normal.

Line and Griffin (1935) compared a sample of 20 graduate students designated as the "stable" group and 17 hospitalized patients designated as the "unstable" group. Using Beck's system for scoring movement responses, they report means, sigmas, and ranges for M on the two groups: "Stable", 5.4, 3.3, and 2-12; "Unstable", 1.5, 1.5, and 0-4, respectively. The authors point out that it would appear that the M responses were different in the two groups but that a comparison of these values expressed as percentages of R shows that, far from being different, the groups are

remarkably similar.

In a study done by Wishner (1948) results are presented for M and R on a sample of 42 mixed neurotics. Using Beck's scoring system, he reports means, sigmas, and ranges for M as follows: 2.17, 2.7, 0-9, respectively; and for R: 28.26, 14.52, 12-78, respectively.

Gardner (1936), employing a sample of 100 normal adults, reports the number of movement responses given per card. However, his means of scoring movement responses is ill-defined, although he states that Beck's system was employed.

Beck, Rabin, Thiesen, Molish and Thetford (1950) report a normative study done on a variety of Rorschach variables for a group of 157 normals, using Beck's scoring system.

The only normative study which could be found in the literature employing Klopfer's scoring system was that done by Cass and McReynolds (1951). The sample employed was 104 normal adult subjects (58 males; 46 females) with an age range of 20-75, mean of 38.2, and sigma of 14.8. The range of grades completed was 7-16 with a mean of 11.2 and sigma of 2.4. The procedure used to obtain the absolute number for the various categories was as follows:

...the magnitude or total score value of a given category for a subject was determined by the sum of all such category sums found in the subject's test record. These sums were obtained by giving a weight of one to each score in the category which was listed as a main score and a weight of one-half to each score considered as a additional score (Cass and McReynolds, 1951, p. 180).

Using this method, the reported mean, median and sigma for M is 3.0,

2.0 and 3.1, respectively; for FM, 4.5, 3.5 and 3.3, respectively; for m, 1.0, 0.5 and 1.6, respectively; and for R, 24.6, 22.5 and 13.5, respectively. The authors point out that, in view of the skewness of the majority of scoring category distributions, median values are the more appropriate estimates of central tendency for their sample.

Cass and McReynolds (1951) conclude that their results respond rather well to the average scores for normals suggested in the literature; however, one of the exceptions is that FM is normally greater than M. Phillips and Smith (1953) report a 1:1 ratio of M:FM on a normal sample. Klopfer and Kelly (1954) present a hypothesized ideal of two M to one FM.

Several studies have been published on "card pull" in the literature, i.e., those properties of the inkblot which seem to predispose the subject to the use of certain aspects of the blot. Ranzoni, Grant and Ives (1950) point out that this is important to know before interpreting the projective data due to the fact that those responses based on what is more stimulus determined perhaps do not carry the same significance as those which the individual projects of himself. The card pull data is based upon a group of "normal" adolescent boys and girls at four different age levels, using Klopfer's scoring method. The frequent M were found to be: Card III first and VII second for ages 11, 13, 15. At age 18 the popular M on Card III took second place to the M on Card VII. In general, Cards III, VII, and II were strongest in eliciting M; Cards V, VIII, VI were weakest. For FM the authors report that Card VIII is first rank; V, second; however, until age 18, the difference between them is

not significant. Card X ranked third, while IX and VI were consistently in the bottom ranks. In a study presented by Allen (1953) the standard set of Rorschach cards plus an experimental set which were entirely achromatic were presented to determine the effect on projection of human movement associations with color. The results indicate that for both sets card pull for human movement was the same, i.e., IX, III, VII, II, I (in that order) elicited the highest number of M responses. Least productive of M concepts in both series were plates V, IV, X, VI, VIII in decreasing order. Phillips and Smith (1953) found that Card VI and VIII only rarely elicit an M, Cards IV and V taken together probably elicit only about 10 per cent of all movement responses, and the great majority of all M responses (perhaps 90 per cent) are developed to specific areas of the six remaining cards. They continue that Cards III, II, VII and IX are approximately equal in eliciting M; human movement on I is quite common and also on X, although M on the latter are developed almost exclusively by individuals of superior intelligence. The cards on which FM is frequently elicited are (in order): VIII, V, II, I.

Phillips and Smith (1953) also present norms for other dimensions of the human and animal movement response. For example, area and content norms for M and FM and the projected sex for M are reported.

#### Methodological Problems

Cass and McReynolds (1951) list requirements which they feel are necessary for adequate Rorschach norms, several of which are pertinent to the present thesis. They state that norms should be described in

statistical terms; that is, at least the mean, standard deviation and an indication of the shape of the group should be presented. The latter is of particular importance because the majority of Rorschach scoring categories produce markedly skewed distributions which prohibit statistical analysis requiring assumptions of normality. A further problem is that clinical judgment indicates that in most cases the scale units for a Rorschach scoring category are not equal, e.g., more interpretative weight is given to the difference between 2 and 4 M than to the difference between 22 and 24 M. Secondly, Cass and McReynolds stress that the sample should be described with regard to age, sex, educational level and occupation. And thirdly, that an examiner should use only those norms which are stated in terms of the scoring system which he employs.

Cronbach (1949) presents an excellent discussion of correct and incorrect statistical methods which have been employed in dealing with Rorschach scores. He points out that the choice of procedure is an important problem because of the skewness of Rorschach scores, the complications that are introduced by ratio scores and the dependence of Rorschach scores on the total number of responses.

Wittenborn (1949b) states:

One of the outstanding characteristics of Rorschach responses is their highly individual quality, their extreme variability from person to person. This makes statistical treatment of Rorschach data awkward because of the difficulty in securing a sufficiently large number of roughly identical responses, e.g., out of a group of normal subjects many, if not all, would report Human Movement responses, but relatively few would have more than two or at the most three identical responses in common (Wittenborn, 1949b, p. 258).

In another study, Wittenborn (1949a) concludes that, "The data suggest that response content (with its implied associations and projections) may play an important role in determining the functional similarities and dissimilarities of certain response, particularly those which involve movement" (Wittenborn, 1949a, p. 340).

Beck et al. (1950) make an important point when discussing "Inner Life" in their normative study. These authors state:

To reduce the amount of subjectivity and to make possible a repeating of the investigation, the following prerequisite is incumbent on anyone reporting findings in the Rorschach test. He must describe and define, in operationist language, the determinant which is designated in each of these "inner living" factors....What does he call M...? His scorings can be judged in the framework of his definitions. Another experimenter can repeat the operations (Beck et al., 1950, pp. 257-258).

Since a sample of negro female patients was one of the groups employed in the present thesis, an attempt was made to find literature on a comparison of whites and negroes on the Rorschach, particularly in regard to the movement response. The only one this writer could find was a study done by Hunter (1937) employing 100 whites and 100 negroes in order to compare them on the M:C ratio. The method of scoring movement is ill-defined and the results are of negligible use for the present thesis.

Although Rorschach (1942) intimated that there are sex differences on Rorschach performance, standard references (Beck, 1944; Beck, 1945; Klopfer et al., 1954; Schafer, 1954) devote little attention to this question. The few empirical studies that have been completed are limited

to children and adolescents as subjects. Baughman and Guskin in the introduction to their study, state "If sex differences do exist one might expect these differences to show up most clearly in the records of adults" (1958, p. 400). These authors compared two groups of 26 matched male and female "normal" subjects on 17 summary scores. Although their general conclusion was that no stable differences were found between the two groups, they do report, "Only one score, FM, revealed a significant difference between the sexes at the .05 level, male Ss giving more animal movement responses than female Ss" (1958, p. 400). A follow-up study on a different group failed to uphold this finding, however.

The scoring of expansiveness in the present thesis was based upon Piotrowski's suggested schema (1957, pp. 195-196). In a recent study (Kagan, 1960) the author discusses the advisability of breaking down movement responses along some continuum and presents theoretical notions underlying this.



## CHAPTER III

### THE PROCEDURE

#### Sample

The data upon which this thesis is based were obtained from Rorschach protocols which were administered by graduate students in an internship program whereby clinical patients from various psychiatric installations in the city of Chicago were tested. Each of these patients was given a battery of psychological tests which afforded the student interpretative material from which a final diagnosis was made. The first step in this research, then, was to pull from the files all those cases which had been diagnosed as "psychoneurotic," and which contained complete Rorschach records.

Originally, the author intended to use only those individuals who were between 18 and 50 years of age and for whom there was a Minnesota Multiphasic Personality Inventory (MMPI) present in the battery of tests which had been administered. In an attempt to insure that only those individuals who were bona fide psychoneurotics were included in the sample, the Rorschach and MMPI were set up as primary criteria for judging the accuracy of diagnosis. Usually included in the battery of tests were also a case history and other psychological tools such as an intelligence test, the Bender-Gestalt and Draw-A-Person. When these

were available they served as supplementary criteria for checking the accuracy of diagnosis.

The 163 cases which satisfied the above criteria, i.e., between the ages of 18-50 and having both the Rorschach and MMPI, were then examined by the present writer. Following this, a professor trained in clinical psychology rechecked the cases in order to confirm the decision made as to acceptance or rejection of an individual from the sample. In this manner, 48 cases were rejected which left 115 usable records.

As there were a number of cases which were excluded as possible candidates for the psychoneurotic sample because of the age boundary and the necessity of there being an MMPI present, it was decided to alter these limitations in an attempt to increase the sample number. Therefore, the required age was extended down to 16 and up to 60, inclusive, and the requisite for a MMPI being present was dropped. This new criteria made 80 more cases available; however, after the checking system for accuracy of diagnosis was applied, there were only 49 of these who could be accepted. Thus, the total sample was increased to 163.

It was originally intended that there be four groups in the sample-- White Male, White Female, Negro Male and Negro Female. However, there were only three male negroes in the entire sample which necessitated dropping this group and there were twelve cases which were unidentifiable as to race. Discarding these 15 records resulted in a final sample of 148 psychoneurotics between the ages of 16 and 60 having complete Rorschach records.

There were two different criteria employed for judging the accuracy of diagnosis so that each group in the sample contained two Sub-groups: Sub-group I (age 18-50, having MMPI's) and Sub-group II (age 16-17, 51-60, and those having no MMPI's). Although it was felt that a rigid checking of diagnosis had been executed, the author decided to run a t-test on Sub-group I and Sub-group II of each individual group to see if the two sub-groups were significantly different on certain Rorschach variables (R; M; FM). The means, sigmas, and t's are presented in Table XIV on page 69. Although the t-test was a weak statistical test to employ for these purposes, in view of the large variance for each group the resultant t-tests remained non-significant ( $P > .05$ ). Therefore, it was felt that combining these sub-groups was justifiable and this resulted in a final sample of 59 White Males, 68 White Females, and 21 Negro Females. The normative work to be presented in the following chapter is based upon data gathered from each of these three groups. No results are presented on these groups combined into a total psychoneurotic sample for several reasons: (1) results reported in the literature on sex differences on Rorschach performance are inconclusive and (2) little information is available as to differences between racial groups in responding to the Rorschach, although some studies indicate that cultural factors do influence performance. Thus, it was felt that a combination of the three groups would create an undesirable heterogeneous sample and make resulting normative data unclear.

In conclusion, then, the three groups employed in the present thesis

are designated as "psychoneurotic" on the basis of the following:

(1) these persons had come voluntarily to a psychiatric installation seeking help; (2) from the results of a battery of psychological tests considered in conjunction with case history material, they were diagnosed as "psychoneurotic" by a student intern; (3) their records were rechecked thoroughly by two qualified persons in order to discard those persons for whom the previously made diagnosis was questionable.

Several points regarding the sample should be kept in mind when the results are presented. The first is that it would have been desirable if a breakdown of the groups into their diagnostic subclassification (e.g., Obsessive-Compulsive; Hysteric, etc.) could have been made. However, as this was found impossible to do, the sample includes all types of psychoneurotics. Secondly, although the size of each of the white groups is larger than is often reported in studies appearing in the literature, a greater number would have been valuable for assuring more stable results. Finally, the size of the female negro group is quite small, which should be remembered when the results from this group are discussed.

### Methodology

For the present thesis human movement (M) is defined as follows: Those concepts in which the subject states that a human figure, human-like creature or part of a human figure is seen, while at the same time positing life to the concept whether it be in the form of action, posture or

facial expression.

The same definition, stated above, is modified for FM by substituting "animal" for "human."

Inanimate movement (m) is defined: That movement which is projected into an inanimate object, regardless of the form quality of the object.

Klopfer's scoring system served as the basis for scoring the movement responses and his rules for M, FM, and m are presented in Appendix I. It should be noted that the following specifications were made for using this system in the present thesis:

1. Movement, regardless of the type, took precedence over any other determinant.
2. All human action, posture and facial expression, whether designated as a drawing, statue, caricature, etc., was scored as a main M if it occurred in the Response Proper.
3. All animal movement, whether designated as a statue, etc., was scored a main FM if it occurred in the Response Proper.
4. Only inanimate movement and expressions on masks were scored m.

One can see that there are slight changes in the adaptation of Klopfer's system of scoring which were made necessary in dealing with the protocols used for this thesis. Several reasons for this are:

- 1) The Rorschachs were given by numerous examiners and it was generally impossible to ascertain the spontaneity of movement in the Inquiry. Therefore,
  - a) All movement, whether M, FM, or m, was considered "main"

if it occurred in the Response Proper.

- b) All movement was considered "additional" if it occurred in the Inquiry, whether as a result of the technique used in this administrative procedure or as a result of an additional response.
- 2) Only human figures seen in movement were scored M because the most important hypotheses attached to the meaning of the human movement response involve the introduction of the human figure. Therefore,
- a) Animals in human-like movement were scored FM.
  - b) Threatening expressions were scored M or FM if seen as part of a human or animal concept rather than being scored m.

A data sheet was prepared for recording the movement responses and their various dimensions. Each data sheet was identified by a code number, age and sex of the patient, his IQ as determined by the Wechsler-Bellevue or Wechsler Adult Intelligence Scale, his race, total number of responses, time per response, the date of the Rorschach administration and the name and sex of the examiner. The data sheet, an example of which is presented in Appendix II on page 63, provided space for recording the following:

1. Initial reaction time for each card (IRT)
2. Total number of responses per card (R/C)
3. Number of the response in which movement was seen (R#)
4. Position of the card for the response in which movement was seen (Po)

5. Location (according to Klopfer) of the movement response (Lo)
6. Whether the movement was additional, i.e., not occurring in the Response Proper (Ad)
7. Whether a whole figure (Wh) or part of a figure (Pt) was seen
8. Whether the movement was of the M, FM, or a type
9. Whether the movement involved simple (Si) or blocked (Bl) movement
10. Expansiveness of the movement, i.e., extensor or flexor movement was rated on a 6-point scale which accounted for energy involved in the movement response from most aggressive to most submissive (see Appendix III, page 64)
11. The projected sex of the movement response, i.e., whether the same (Sa) or opposite (Op) sex was seen relative to the patient; sex stated as either male or female (Ei); no sex given (Neuter, N); or both male and female seen in the same concept (Bth)
12. The age level of the projection, i.e., whether a child (C), adult (A), or older person (OP)
13. Popular (P) or Original (O) movement given (see Appendix V, page 68)
14. The form level (FL)
15. The content
16. Pertinent comments of the patient concerning the movement response (Abstract column)
17. The presence of movement shock (applied only to Card III and noted in the Abstract column)

Several of these dimensions require further clarification and exemplification. This information is found on pages 61-68 of the appendix.

A tally sheet was then prepared for entering the data which was to serve as bases for the normative work reported in the present thesis. When this was completed, the data was in a form which lent itself to setting up the tables which will be presented in the following chapter.

## CHAPTER IV

### RESULTS AND DISCUSSION

The information on each psychoneurotic group as to age, intelligence, and educational level is given in Table I. The age of each group is relatively comparable, although there is some skewness present as indicated by the median values. However, since the latter are in the same direction, the comparability of the groups regarding age would not change. The intelligence level (as determined by the Wechsler-Bellevue or WAIS) for the two groups of white patients is quite high--the majority falling within the average or high average range. The negro females have a lower mean IQ with slightly greater dispersion than the white groups. The table indicates that over 50 per cent of the persons within each group completed between eight and fifteen years of schooling.

Table II gives the information for each group on the number of spontaneous responses (R) in each protocol. Here the median values are more appropriate due to the skewness of the data. Normal productivity is usually considered to fall between 20-45 (Klopfer et al., 1954). Therefore, it may be seen that the neurotic groups employed herein tend to underproduce. Further substantiation of this is seen in that these results are somewhat lower than the median (22.5) reported by Cass and McReynolds on their 104 normals. The means correspond quite closely to



TABLE I

Means, Medians, and Sigmas for Age, IQ and Highest Grades Completed  
for Three Groups of Psychoneurotic Patients

Group	Age			I Q			Highest Grade Completed		
	Mean	Mdn.	S.D.	Mean	Mdn.	S.D.	Mean	Mdn.	S.D.
Male White (N = 59)	31.16	27.76	11.08	111.29	111.60	10.80	12.40	12.50	3.17
Female White (N = 68)	32.24	30.64	9.48	108.10	107.95	11.82	12.14	12.37	2.82
Female Negro (N = 21)	33.24	32.67	9.44	99.70	98.50	13.11	11.95	12.50	3.07

the information reported by Line and Griffin (1935) on R for their "unstable" groups (mean = 21.4; S.D. = 9.5) although in the present

TABLE II

Means, Medians, Sigmas, and Ranges for Total Number of Responses  
on the Rorschach for Three Groups  
of Psychoneurotic Patients

Group	Total Rorschach Responses			
	Mean	Mdn.	S.D.	Range
Male White (N = 59)	21.56	18.43	12.33	5-60
Female White (N = 68)	19.68	15.68	12.27	5-70
Female Negro (N = 21)	20.00	16.25	9.68	9-46

white groups studied there is greater dispersion than in their group. Wishner (1948) reports a higher mean for R (28.26) for his 42 neurotics than the present writer found. Tables XV, XVI, XVII were prepared to show the frequency of R given to each Rorschach card for each of the three psychoneurotic groups. The representative per cents are also reported. The Rank Orders of cards eliciting the greatest number of rejects for these groups are as follows (brackets indicate ties):

## Male White

IX  
VII  
VI }  
X }  
II }  
V }  
III }  
IV }

## Female White

VI  
IX  
II  
VII  
X  
III }  
IV }  
I }  
V }  
VIII }

## Female Negro

VI  
IX  
II }  
III }  
IV }  
V }

The card which elicited the greatest number of responses for the three groups were X, I, VIII, III.

Table III reports the mean number of responses given by the two psychoneurotic groups on each Rorschach card. Beck et al. (1950) presents

TABLE III

## Mean Card Productivity for Three Psychoneurotic Groups

Group	Card Number									
	I	II	III	IV	V	VI	VII	VIII	IX	X
Ma Wh	2.19	2.03	2.15	2.10	1.81	1.93	1.75	2.22	1.92	3.27
Fe Wh	2.34	1.56	1.90	1.68	1.65	1.38	1.62	2.03	1.79	3.59
Fe Ne	2.24	2.00	1.90	1.86	1.57	1.43	1.71	2.10	1.71	3.43

such a table in his study of normal subjects. He reports means for each of his four occupational groups and found that the means dropped according to the occupational level, i.e., level IV (unskilled) consistently had

the lowest means for the ten cards. In studying reported ages and educational background for each of Beck's occupational levels it appears that his Level III (semi-skilled) would approximate the present neurotic groups' status and the means for this level are at least one or more points higher for each of the ten cards. With the exception of Card I, the psychoneurotics' means are also lower than the means which Beck reports for his Level IV occupational group. These findings would seem to indicate that these psychoneurotic groups are less productive than normal subjects.

Table IV is a presentation of the mean, median, sigma and range of each group for the three types of movement considered in the present thesis. The median values are more appropriate measures here because of the tendency of these scoring categories to be skewed. Those normative studies reported in the literature which employ Beck's scoring of movement are not comparable with the results reported herein. Cass and McReynolds (1950) while using Klopfer's scoring system, report their results as based upon a weight of one for main scores and a weight of one-half for additional, whereas the values in Table IV are based on main movement responses alone and thus, can not be compared with these authors' results. However, these data do support one of Cass and McReynolds' findings regarding their normal sample in that they report that FM was usually greater than M. Phillips and Smith (1953) found a mean ratio of 1:1 for M and FM in a group of 70 adult males.

Inter-group comparisons indicate that the median value for M production is exactly the same for each group whereas FM production varies.

TABLE IV

Means, Medians, Sigmas, and Ranges for the Main Movement Responses on the Rorschach  
for Three Groups of Psychoneurotic Patients

Group	M				FM				m			
	Mean	Mdn.	S.D.	Range	Mean	Mdn.	S.D.	Range	Mean	Mdn.	S.D.	Range
M W <sup>a</sup>	1.92	1.20	2.71	0-18	2.56	2.20	2.15	0-11	0.36	0.17	0.71	0-3
F W <sup>b</sup>	1.74	1.20	2.21	0-14	2.07	1.46	1.88	0-9	0.43	0.22	0.74	0-3
F N <sup>c</sup>	1.76	1.20	2.14	0-9	1.48	1.08	1.71	0-6	0.19	0.12	0.39	0-1

<sup>a</sup>M W Male White (N = 59)

<sup>b</sup>F W Female White (N = 68)

<sup>c</sup>F N Female Negro (N = 21)

The male white group's production of FM is slightly higher in relation to M, whereas for the two female groups M and FM production was approximately the same. Production of inanimate movement was very slight for all three neurotic groups.

Table V is a summary of the frequency of main M for each card and the percentage these represent of the total number of responses given per card. This was done because of the criticism which has been directed at those studies which did not take into consideration the relationship of Rorschach scoring categories and the number of responses when reporting results. Also, absolute frequencies alone would prevent inter-group comparisons since N is different for each group. Upon inspection of the table it may be seen that in some cases the rank order of M frequency is changed slightly when R is taken into account. The Rank Order for main M for each group is as follows:

Male White	Female White	Female Negro
III	III	III
IX	VII	II
VII	II	IX
II	V	I
V	IV	VII
I	I	V
IV	IX	IV
VI	VI	VI
X	VIII	X
VIII	X	VIII

These results correspond fairly closely to those reported by Allen (1953), IX, III, VII, II, I; by Phillips and Smith (1953), III, II, VII, IX; and Ranzoni et al. (1950), III, VII, II; for the cards frequently eliciting M. However, these authors reported on a "normal" sample with both male

TABLE V

Frequency and Per Cent of Occurrence of Main M for Three Psychoneurotic Groups

Card No.	Male White			Female White			Female Negro		
	R per card	f	M/R	R per card	f	M/R	R per card	f	M/R
I	129	9	7	159	11	7	47	5	11
II	120	9	8	106	12	11	42	7	17
III	127	36	28	129	35	27	40	11	28
IV	124	7	6	114	9	8	39	2	5
V	107	9	8	112	10	9	33	2	6
VI	114	4	4	94	4	4	30	1	3
VII	103	12	12	110	19	17	36	3	8
VIII	131	4	3	138	4	3	44	0	0
IX	113	15	13	122	7	6	36	5	14
X	193	8	4	244	7	3	72	1	1

and female subjects combined or on an unidentified "normal" sample (for example, Phillips and Smith seldom report any sample information).

Table VI is a presentation of the percentage of main FM in relation to R for each card. The Rank Orders here are:

## Male White

V }  
VIII }  
X  
II }  
VII }  
III  
IV  
I  
VI  
IX

## Female White

II  
VIII  
VII  
V }  
X }  
IV }  
IX }  
VI  
I  
III

## Female Negro

VIII  
VII  
II  
IV  
V }  
X }  
III  
VI }  
IX }  
I

Ranzoni et al. (1950) reports a rank order for FM of VIII, V, X with Cards IX and VI consistently in the bottom ranks. Phillips and Smith (1953) report a rank of VIII, V, II, I. The data reported herein approximates these above-mentioned results, except that Card I consistently appeared in the bottom ranks in contrast to the results of Phillips and Smith who find it at the top in frequency.

Intergroup comparisons on the M and FM rank orders seem to be somewhat revealing. Each group gave the popular M on Card III so that it maintained the highest rank. However, the male white and female negro groups gave human movement to Card IX more easily than the female white group. The female negro appear to have more difficulty with giving M on Card VII than is reported in the literature. Rather, the tendency of this group was to see animal movement on VII. Also, both white groups gave M to Card VII so that it was in the upper third of the rank order while, at



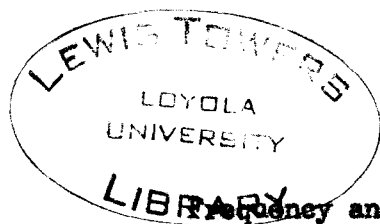


TABLE VI

Frequency and Per Cent of Occurrence of Main FM for Three Psychoneurotic Groups

Card No.	Male White			Female White			Female Negro		
	R per card	f	FM/R	R per card	f	FM/R	R per card	f	FM/R
I	129	8	6	159	3	2	47	1	2
II	120	19	16	106	28	26	42	4	10
III	127	11	9	129	2	2	40	2	5
IV	124	10	8	114	7	6	39	3	8
V	107	20	19	112	14	13	33	2	6
VI	114	5	4	94	5	5	30	1	3
VII	103	16	16	110	16	15	36	4	11
VIII	131	25	19	138	28	20	44	9	20
IX	113	3	3	122	7	6	36	1	3
X	193	34	18	244	31	13	72	4	6

the same time, this card appears in the top five cards for eliciting FM. The question that remains unanswered is whether Card VII has card pull for both of these types of movement or whether this is a function of these neurotic groups. There seems to be more variability between groups in card pull for FM than for M, with the male white approximating that reported in the literature more closely than the two female groups. Card VIII maintained its high FM card pull, although for the female white group Card II takes precedence. In sum, these findings from Tables V and VI seem to indicate that there are possibly sex differences in reacting to Rorschach stimuli, at least among psychoneurotics; and also, that there may be differences according to race although this is difficult to determine due to the small number in the negro group.

Table VII presents the percentage of inanimate movement per card for each group. The Rank Orders for this variable appear below with those cards having a zero frequency excluded:

## Male White

IX  
II }  
VII }  
IV  
X  
V

## Female White

IX  
II  
I }  
III }  
IV }  
VI }  
X }

## Female Negro

IX }  
VII }  
II }  
VIII }

Very little can be said about this table since the absolute frequencies are so small. However, it is important to notice that Card IX has an exceptionally high card pull for inanimate movement.

Tables XVIII, XIX, XX present the number of main movement responses; the number of additional movement responses; the totals of these; and

TABLE VII

Frequency and Per Cent of Occurrence of Main m for Three Psychoneurotic Groups

Card No.	Male White			Female White			Female Negro		
	R per card	f	m/R	R per card	f	m/R	R per card	f	m/R
I	129	0	0	159	3	2	47	0	0
II	120	3	3	106	3	3	42	1	2
III	127	0	0	129	3	2	40	0	0
IV	124	2	2	114	2	2	39	0	0
V	107	1	1	112	0	0	33	0	0
VI	114	0	0	94	1	1	30	0	0
VII	103	3	3	110	0	0	36	1	3
VIII	131	0	0	138	0	0	44	1	2
IX	113	9	8	122	15	12	36	1	3
X	193	3	2	244	2	1	72	0	0

the percentage of additional given in relation to the main movement responses. As the frequencies are rather small, one might question interpretation of these. With this in mind, however, we see that for each group there is more of a tendency to give FM as additional rather than M. This is interesting from the standpoint of theory in that FM is generally thought to reflect earlier roles of a person and to be an indication of impulse life. Thus, one might expect that these would not be elicited as readily. And, the tendency for these groups to see human movement, if it is going to be seen at all, when first presented with the cards rather than when seeing the cards for a second time is perhaps logical when the theory underlying this type of movement is considered. As Kagan (1960) states, "These findings [i.e. research and theory regarding human movement responses] agree with the statements of Klopfer et al., (1954) that movement imagery reflects an availability to consciousness of thoughts that are directly related to basic motives and conflicts" (p. 72).

Table XXI reports the number of whole percepts and number of part percepts seen in relation to the main M given per card. In general, the tendency was to see a whole person. This agrees with Phillips and Smith (1953) who state that the great majority of M responses are developed in full human percepts. Table XXII is a presentation for this same information for animal movement.

Tables XXIII, XXIV, XXV are summaries of the degrees of expansiveness given for M and FM for each group. (The method for scoring expansiveness is explained in Appendix III, p. 64 ). Here percentages are not

included because the frequencies were too small to provide for stability. Expansiveness for additional M and FM is also included in these tables. Table XXVI presents the frequencies of expansiveness for main and additional inanimate movement for each group. From the above mentioned tables, Tables VIII, IX, and X were prepared. These present the mean expansiveness for each card and for the total Rorschach. The means for m are not meaningful since this type of movement was given infrequently.

Table VIII indicates that the male white group produced a range of means from active to passive M, depending on the card; whereas the means for FM are very similar, and, in general, tend to be active. For the total mean expansiveness it may be seen that this group tends to give more passive M than FM or m.

Table IX reveals that, for the female white group, there is somewhat more variability between the mean expansiveness per card for both M and FM. And, furthermore, while the M expansiveness for the total Rorschach is slightly more passive than FM, there is little difference between these two.

For the female negro group, in Table X, the total mean expansiveness is virtually the same for both M and FM, although there is variability within the means per card for these two types of movement.

To afford some degree of intergroup comparisons for M mean expansiveness per card, a Rank Order was set up from the most active to the most passive as follows:

TABLE VIII

Mean Expansiveness for Main Movement Responses for the Male White

Card No.	Mean M Expansiveness	Mean FM Expansiveness	Mean m Expansiveness
I	2.9	2.2	0.0
II	2.1	2.7	1.3
III	2.8	2.8	0.0
IV	3.9	2.4	3.5
V	4.8	2.1	4.0
VI	4.0	2.4	0.0
VII	3.0	2.2	2.7
VIII	4.2	2.2	0.0
IX	2.7	3.0	1.2
X	2.6	2.1	2.0
Total	3.3	2.4	2.4

TABLE IX

Mean Expansiveness for Main Movement Responses for Female White

Card No.	Mean M Expansiveness	Mean FM Expansiveness	Mean m Expansiveness
I	2.8	2.7	2.3
II	2.4	2.7	1.7
III	2.5	4.0	3.0
IV	3.7	2.7	3.0
V	3.9	2.6	0.0
VI	3.5	2.4	2.0
VII	2.8	2.9	0.0
VIII	3.7	2.2	0.0
IX	3.4	3.1	1.9
X	2.7	2.6	2.0
Total	3.1	2.8	2.2

TABLE X

Mean Expansiveness for Main Movement Responses for Female Negro

Card No.	Mean M Expansiveness	Mean FM Expansiveness	Mean m Expansiveness
I	3.2	4.0	0.0
II	2.9	3.0	2.0
III	3.3	3.0	0.0
IV	4.0	2.3	0.0
V	3.5	2.0	0.0
VI	2.0	1.0	0.0
VII	2.3	3.0	2.0
VIII	0.0	2.2	2.0
IX	3.0	4.0	2.0
X	2.0	3.2	0.0
Total	2.9	2.8	2.0



Male White	Female White	Female Negro
II	II	VI
X	III	X
IX	X	VII
III	I	II
I	VII	IX
VII	IX	I
IV	VI	III
VI	IV	V
VIII	VIII	IV
V	V	

Since the means are quite close in all cases it is difficult to interpret these results. Another hindering factor is the small absolute frequency which was obtained when the M responses were spread over six degrees of expansiveness. However, a few general remarks will be made. It may be seen that the cards which elicited the more active human movement for the two white groups are II and X; and V is consistently in the bottom rank. Card VI elicits a mean expansiveness which places it in first rank for the female negro, whereas it is consistently in the bottom ranks for the white groups. Furthermore, the former group was able to see more active human movement on Card VII than either of the white groups whereas movement to Card III tends to be more passive than that seen by the white patients.

The Rank Order for mean FM expansiveness per card for each group is as follows:

Male White	Female White	Female Negro
X	VIII	VI
V	VI	V
I	V	VIII
VII	X	IV
VIII	I	II
IV	III	III
VI	IV	VII
II	VII	X
III	IX	I
IX	III	IX

As was the case with the human movement expansiveness, the closeness of these means makes any intergroup comparison difficult. However, one can note the intergroup variability in the cards which elicit the more active or more passive expansiveness.

Table XXVII presents the frequencies for the projected sex of the human movement response for the three groups of neurotic patients. It was possible for a patient to see the same sex as himself, the opposite sex from himself, to state that the percept could be either male or female, to project no sex upon the figure; or state that both male and female were seen in the same concept. Most often, the information about sex is not volunteered and this tends to overload the "neuter" column. However, it is felt by this writer that these other categories are significant in that, if the sex is given, it is usually a spontaneous remark. Here again, percentages were not included since the frequencies were small. A table for the projected sex of animal movement was not included since the majority of these, by their very nature, fell into the "neuter" column.

From Table XXVII, the columns were totaled to cover all ten Rorschach cards, which results are given in Table XI. This table presents a picture of the pull for the total Rorschach for projections of sex. Thus each neurotic group saw approximately equal numbers of male and female percepts. In close to half of the cases where M is given, however, there is no mention of the sex of the percept. Phillips and Smith report findings regarding sex projection for normal subjects, although their

TABLE XI

Projected Sex Per Cent of Total M for Three Groups of Psychoneurotics

Group	Same	Opposite	Either	Neuter	Both
Male White	25.7	29.2	0.9	43.4	0.9
Female White	25.4	22.9	1.7	47.4	2.5
Female Negro	29.7	27.0	0.0	40.5	2.7

remarks are confined to the specific location of M on Cards I, II, III, VII, IX, and X. "In general, with respect to forms in M, men and women show no significant difference in sex preference, although women tend to see a somewhat larger proportion of female figures than do men....In both groups between one half and two thirds of all M percepts are explicitly or implicitly assigned a gender, although the proportion is somewhat higher in women than men"(1953, p. 67).

In an effort to determine the individual card pull for seeing a male or female figure, Table XII was prepared. Thus, the frequency and per cent of the number of males seen per card and the number of females seen per card is presented. Only the two white groups were used for setting up this table since they are approximately equal in number and inclusion of the female negro group would overload the sample with females. The results were thus obtained by adding the main M per card for the two white groups; adding the frequencies of males who saw "opposite" and females who

TABLE XII

Frequency and Per Cent of "Female" and "Male" Projected Sex Per Card  
for the Combined Group of White Patients

Card	Total M for male and female white per card	Female Seen		Male Seen	
		No.	Per cent of total M	No.	Per cent of total M
I	20	6	30	4	20
II	21	3	14	3	14
III	71	20	28	26	37
IV	16	2	12	6	38
V	19	4	21	5	26
VI	8	1	12	3	38
VII	31	15	48	0	0
VIII	8	3	38	1	12
IX	22	6	27	5	23
X	15	3	20	3	20

saw "same" to obtain the "females seen" and vice versa to obtain the "males seen" category. Although it is realized that the percentages are based upon rather small frequencies, the interest here is not on the per cent, per se, but on the comparison of two per cents which have a common base.

In a table such as this, small discrepancies between percentages are not interpretable. Phillips and Smith state, in regard to normal subjects' reaction to Card III, that "The form most frequently perceived is that of men, with neutral forms...occurring commonly, and female forms only infrequently " (1953, p. 65). However, Table XII reveals that the two white psychoneurotic groups saw approximately equal male and female percepts on Card III with a very slight tendency for seeing males. It was found that, of the ten Rorschach cards, only Card VII significantly produced a particular sex, viz., "female." That is, for the total M given to Card VII by the two white psychoneurotic groups, a female percept was projected in 48 per cent of the cases whereas no male percepts were projected on this card. On the remaining nine cards, there were no significant differences between the card pull for male or female percepts.

TABLE XIII

Projected Age Level Per Cent of Total M for  
Three Groups of Psychoneurotics

Group	Child	Adult	Old Person
Male White	7.0	89.0	4.0
Female White	7.6	91.5	0.8
Female Negro	11.0	89.0	0.0

Table XXVIII presents the frequencies for each group in projecting either a Child, Adult, or Old Person in their M concepts. In general,

the majority of the M responses were Adult. The only exception occurs on Card VII in which a Child was projected for approximately half of the human movement given by these three neurotic groups. Table XIII gives the percentage for each age level projected for the total Rorschach.

Table XXIX presents information on the popular and original concepts. (The definitions for scoring these particular categories are presented in Appendix V, p. .) For this table the M and FM per card were totaled for each group; m was not included since this type of movement was never scored as popular or original. The percentage of popular and original concepts thus represent a per cent of the total human and animal movement given per card. The table reveals that for the male white and female negro groups the popular animal movement on Card VIII was elicited most frequently; for the female white group Card III elicited the highest per cent of populars. The popular human movement on Card III is also given with high frequency although it is interesting to note the drop in percentage for the male white group--the reason being that this group gave a greater amount of FM to this card than the other two groups for which, of course, a Popular would not be scored.

The percentages for originals are higher for those cards for which there were no populars, which is to be expected. This did not, however, preclude the possibility of scoring an original on a card for which a popular had been set up and it may be seen from the table that this sometimes happened. Except in the case of the negro female group where frequencies were so small and subsequent percentages large, the groups

are quite similar in the percentages of originals given.

The major purpose of this chapter was to present data. However, trends were pointed out when the data lent itself to such treatment. Of course, it should be realized that this normative data represents tentative findings on the Rorschach movement response. In general, the results which appear herein are the beginnings of a statistical standardization on separate dimensions of movement responses for a psychoneurotic population which, up to now, has been neglected.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

The purpose of this thesis was to provide normative data on the Rorschach movement response for a total of 148 psychoneurotic patients. In this sample there were 59 White Males, 68 White Females and 21 Negro Females. The development of a system of classification permitted an investigation of the many dimensions of human (M), animal (FM), and inanimate (m) movement. Klopfer and Kelly's scoring system served as the primary bases for scoring these responses.

The review of the literature indicated the diversity among authors on the definition and scoring of movement responses and the inconsistencies of reported results regarding the theoretical meanings attached to these variables. It has been shown that there is no normative study reported dealing with the Rorschach movement response and its many dimensions or one in which Klopfer and Kelly's scoring system was used with a psychiatric sample. Cass and McReynolds (1951) and Phillips and Smith (1953) based their results on normal subjects. The lack of information on negro's performance on the Rorschach and the inconsistent results from studies executed to investigate sex differences are also made apparent. With regard to methodology, Cass and McReynolds (1951) present an excellent discussion of requirements for adequate Rorschach norms. Cronbach's (1949)



article is valuable in determining a statistical approach to Rorschach data.

The three groups upon whom the normative data are based were diagnosed as psychoneurotic in a psychiatric clinic. The diagnosis was based upon a battery of psychological tests and a psychiatric interview. For the present study, the test protocols were re-evaluated by trained psychologists to insure accuracy of diagnosis.

The results of this research are reported for each of the three psychoneurotic groups. These groups were not combined into a total psychoneurotic sample as it would have created a heterogeneous sample from which resulting normative data would have been unclear.

The mean age of each group in the sample was as follows: Male White, 31.16; Female White, 32.24; and Female Negro, 33.24. The mean IQ was: Male White, 111.3; Female White, 108.1; and Female Negro, 99.7. Mean years of schooling was: Male White, 12.40; Female White, 12.14; and Female Negro, 11.95.

For the purposes of this research human movement (M) was defined as follows: "Those concepts in which the subject states that a human figure, human-like creature or part of a human figure is seen, while at the same time positing life to the concept whether it be in the form of action, posture or facial expression." This same definition was applied to animal movement (FM) responses. Inanimate movement (m) was defined as follows: "That movement which is projected into an inanimate object, regardless of the form quality of the object." While Klopfer and Kelly's

rules for scoring movement were followed in general, certain modifications were made necessary in dealing with the protocols used for this thesis. These modifications have been explained elsewhere.

The classification system which was set up for recording the movement responses included a variety of dimensions. In the present study an exhaustive analysis was not made of all of these; rather results were presented for the following selected dimensions: the type of movement given, that is to say, whether it was M, FM, or m; whether the movement response was main or additional; whether a whole or part of a figure was seen in motion; what the expansiveness of the movement was, that is to say, the movement was placed on a 6-point scale which accounted for the energy involved in movement from the most aggressive to the most submissive; the projected age level, that is, whether the movement percept was seen as a child, adult or older person; the sex projected onto the card in relation to the sex of the subject; and the popularity-originality of the movement response.

The median number of responses (R) given by each group was: Male White, 18.43; Female White, 15.68; and Female Negro, 16.25. In comparison with data reported on normal subjects, these psychoneurotics do tend to underproduce when presented with Rorschach stimuli, which finding supports theoretical expectations discussed in the literature. The median value for human movement (M) in 59 white males was 1.2 and it was exactly the same for the 68 white females and 21 negro females. For animal movement (FM) the median was: White Male, 2.2; Female White, 1.46; Female Negro,

1.08. The production of inanimate movement was very slight for all groups as is seen by the median values: Male White, 0.17; Female White, 0.22; Negro Female, 0.12. Thus, intergroup comparisons indicate that while the median value for M production was the same for all three groups, FM production varied among the three groups.

The rank orders for human, animal and inanimate movement were set up by taking into account the number of responses given to each card, thus yielding percentages. The rank orders for main M for each group were found to be as follows:

## Male White

III  
IX  
VII  
II }  
V }  
I  
IV  
VI }  
X }  
VIII

## Female White

III  
VII  
II  
V  
IV  
I  
IX  
VI  
VIII }  
X }

## Female Negro

III  
II  
IX  
I  
VII  
V  
IV  
VI  
X  
VIII

These results are similar to those reported in the literature for normals with the male white psychoneurotic patients rank order corresponding most closely. Variations among the groups suggest, however, that there may be differences in M responsiveness per card according to the patients' sex and race. That is, while Card III maintained its high card pull for all three groups, the subsequent rank order differed for each of the individual groups.

The rank order for main FM were:

## Male White

V }  
 VIII }  
 X  
 II }  
 VII }  
 III  
 IV  
 I  
 VI  
 IX

## Female White

II  
 VIII  
 VII  
 V }  
 X }  
 IV }  
 IX }  
 VI  
 I  
 III

## Female Negro

VIII  
 VII  
 II  
 IV  
 V }  
 X }  
 III }  
 VI }  
 IX }  
 I

Several authors state that Cards VIII and V maintain the highest FM card pull for normal subjects. While the male white group upholds this expectation, the two female groups do not. The Female Whites gave animal movement to Card II so that it was in first rank with Card VIII in second rank; and the Female Negro group group, while giving FM to Card VIII so that it was in first rank, gave Card VII in second rank.

With regard to inanimate movement (m), it was found that Card IX had an exceptionally high card pull for this type of movement in comparison with the other Rorschach blots.

The mean expansiveness per card and the mean for all ten Rorschach cards were presented for each group. The total mean expansiveness for the human movement responses given on the Rorschach was as follows: Male White, 3.3; Female White, 3.1; Female Negro, 2.9. For animal movement, total mean expansiveness was: Male White, 2.4; Female White, 2.8; Female Negro, 2.8. As the number of inanimate movement responses was so small resultant means were not stable.

Intergroup comparisons reveal that the total mean expansiveness for FM was more active than M in the Male White group, whereas the two female

groups gave approximately the same total mean expansiveness for M and FM. However, all groups exhibited variability on the individual cards' mean expansiveness for both M and FM. For example, for the Male White group the mean M expansiveness for Card II was 2.1 while for Card VIII it was 4.2. For this group, the mean expansiveness per card for FM was less variable, being between 2.1 (Card V and X) and 3.0 (Card IX). The female white group's mean M expansiveness per card varied between 2.4 (Card II) and 3.9 (Card V) while the mean expansiveness for FM varied between 2.2 (Card VIII) and 4.0 (Card III). The female negro group's mean M on expansiveness extended from 2.0 (Cards X and VI) to 4.0 (Card IV) and their mean FM expansiveness was 1.0 (Card VI) to 4.0 (Card I and IX). It should be pointed out, however, that the smaller the number of a particular type of movement response given to a card, the less stable was the resultant mean expansiveness for that card.

The projected sex and age level of human movement (M) percepts for each group of psychoneurotics was determined. A female percept was given to Card VII in 48 per cent of the cases while the remaining movement responses to this card were neuter. For the remaining cards there was no significant difference in their pull for male and female percepts when a sex was elicited. The projected age level for the entire Rorschach human movement responses reveals that between 89 and 92 per cent of these responses were seen as adult. The only exception for this general finding was that in half of the human movement responses given to Card VII a projected age level of "child" was elicited.

At the present time there is research in process on a sample of "normal" college students employing the same procedure for studying the Rorschach movement responses as was used herein. It has been pointed out several times that comparisons of the psychoneurotics with other groups were usually impossible due to the scarcity of literature on the dimensions treated in the present study and the differences in methodology employed in those studies which reported normative data. The results obtained from this normal sample will thus provide some bases for comparison and will yield more conclusive information as to the reactions of a psychoneurotic population with regard to Rorschach movement responses. It is hoped that this same type of study will be executed upon a psychotic population and thus provide further means of comparison.

There are a number of additional research possibilities that are suggested by the data which was collected for this thesis. One area of great interest to the present author is that of the movement content given by the psychoneurotics. In recording the content on the data sheet, there seemed to be a great tendency for these patients to destroy their original percepts by adding qualifying remarks, e.g., changing an adequate H percept into a drawing or mythological figure which gave rise to (H) or exhibiting conflict as to whether the percept was a human or an animal figure. Beck (1945) observes that H responses in neurotics are often poor precisely because their trouble lies in relation with other human beings, which they can be expected to distort, especially in a projective test. Thus, it appears that valuable information would be

obtained by studying the content of the movement which the psychoneurotics elicit.

Furthermore, the qualitative remarks of the patient concerning the type of movement seen are noted on the data sheets in the Abstract column. This, in conjunction with the content category, would be interesting to study. As Hertzman and Pearce point out:

What is surprising...is the large proportion of meaningful material embedded in responses that are fundamentally so conventional as the popular responses. Despite the popularity of the gross perception, many subjects manage to saturate their responses with details of perception or comments that individualize the response. A striking example in Card III is: "Droll little figures facing one another with certain amount of courtesy and suspicion. Being polite without trusting one another at all" (Hertzman and Pearce, 1947, p. 417).

Thus, in the present study this information was not dealt with but would certainly prove to be a worthwhile research project, particularly if comparisons were made between a normal and psychoneurotic sample.

The remarks in the Abstract column served as the bases for scoring the degrees of expansiveness. Thus, it contains what Phillips and Smith (1953) call "attitudes" expressed in the movement response. They state in regard to M:

Certain attitudes or movements recur in the M's elicited by a great number of blot areas. For example, "dancing," which is the most frequent single movement produced, is such a response. These recurrent activities are described as "universal attitudes" and include "looking," "facing" and "standing." Activities which occur more or less exclusively in response to a particular area will be discussed as a "unique attitude" for that area. For example, "warming hands" is a "unique attitude" for Card III, D 1. No particular attitude is absolutely unique or absolutely universal; the dichotomy has been drawn, however, because there are attitudes which occur primarily in the movement responses to a given area, and these may be contrasted

with attitudes elicited by many areas (Phillips and Smith, 1953, p. 65).

In regard to FM, these authors state:

A fairly often occurring group of FM responses expresses oral and destructive or aggressive attitudes. These are developed in FM responses both by normals and by persons with psychopathology, but in normals appear only very infrequently in M (Phillips and Smith, 1953, p. 86).

Since the location choice of the movement response was recorded on the data sheets, the reporting of the same information for the psychoneurotics as these authors present for normals is made possible and would provide further normative data on the sample upon which this thesis is based.

Beck et al. (1950) present several tables which deal with their normal sample's initial response time for each of the ten Rorschach test figures. One table includes the medians and Q per card; another, the means, S.D. and ranges of time for the first response; a third presents the rank order of medians and of means. A fourth table presents the mean fluctuation in time per first response. In regard to this last table the authors state:

Parenthetically it should be mentioned here,--this is more germane to the reports on the clinical groups,--that anxiety shock and neurotic shock, insofar as they are indicated by time for first response, take as their base the patient's own average of first response time for the ten figures in the group as a whole. His own speed sets the criterion. How does he...depart from his own mean?

Averages screen from view the individual events from which they are derived. The mean time for first response may give an impression of evenness, as we observe the actual findings from card to card. Inspection of fluctuation in first response time as it actually occurs from card to card in each person tells different stories (Beck et al., 1950, pp. 273-274).



Since the initial response time per card was recorded on the data sheet for each psychoneurotic patient, tables such as are presented by the above mentioned authors could be set up. Having a normal group with which to compare the results, would certainly yield valuable information concerning this particular variable and the associated meanings it would hold for a psychoneurotic patient.

Another type of information which would prove to be useful in evaluating the present sample of psychoneurotics is the relationship between the number of the response in which movement was seen on a particular card and the total number of responses elicited per card. Besides contrasting movement spontaneity with other determinants, one could examine the data to see if there were differences among the spontaneity for reporting human, animal, and inanimate movement.

Other research which has been reported in the literature or that perceptanalytic workers have suggested doing is possible with the data collected for this thesis. Some of this work would be significant since much of the reported research has employed a normal sample. These research possibilities include:

- (1) Correlating the number of M, FM, and m with the total number of R.
- (2) Doing a breakdown of M, FM, and m according to age groups and/or educational levels to see if there is a relationship between these factors.
- (3) Correlating the number of M per record (taking into consideration form level) with intelligence levels.

- (4) Studying the male neurotics and female neurotics to see if they are significantly different in their movement production. (Baughman and Guskin (1958) report a significant difference between their normal male and female group for animal movement; males giving more FM than females.)

In conclusion, then, the purpose of this thesis was to report normative data for a number of important dimensions of the Rorschach movement response for a sample of psychoneurotic patients; this material has been presented in Chapter IV. Additionally, the task included making suggestions for research which could follow from the data collected for this study. In the present chapter, therefore, suggestions have been made as to future research possibilities which may prove to be of value in assessing psychoneurotics' reaction to Rorschach stimuli, particularly with regard to the movement response.

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## APPENDIX I

### A SUMMARY OF KLOPPER'S SCORING SYSTEM FOR MOVEMENT RESPONSES

#### I. M, or Human Movement

##### 1. Score a main M:

- a. For human beings seen in action, even if the reality of the human figures is qualified by describing them as caricatures, drawings, "petit point," statues, or the like.
- b. For human beings seen in any live posture, unless the reality of the human figure is qualified as a drawing, statue, and so on.
- c. For human-like movement in animals such as fairy-tale creatures or Walt Disney animals. However, do not score M for movement in trained animals, such as a trained dog, ape, or seal.
- d. For movement controlled by an individual even though the subject's statement includes a reference which on the face of it implies inanimate movement.
- e. For parts of human beings seen in action.
- f. For a human face with an expression, provided it is distinctly lifelike and is not considered a symbol of some abstract force.

##### 2. Score a tendency to M (i.e., additional)

- a. Where movement or posture is only conceded under fairly directive questioning in the inquiry.
- b. Where live posture is attributed to a human figure, the reality of which is qualified by making it a drawing, caricature, statue, or the like.
- c. Where only the expression is left on a human figure that is usually seen by other subjects in definite posture or action.
- d. For human-like expression on the face of an animal, the animal not otherwise being in human-like action.
- e. For doubtful human action in an animal.
- f. For human beings in some posture but at the mercy of inanimate forces.

#### II. FM, or Animal Movement

##### 1. Score a Main FM

- a. For animals in movement of an animal-like nature, even if qualified as caricatures, drawings, ornaments, and so on.

- b. Where the movement is reduced to posture at the same time that the reality of the animal figure is qualified by making it a drawing, statue, caricature, silhouette, ornament.
- c. If there is an animal-like expression and no other movement.
- d. If the movement or posture is very weak or if the animal in action (or posture) is at the mercy of inanimate forces, or both.

### III. m, or Inanimate Movement

- 1. Score m, either main or additional:
  - a. For a moving inanimate object.
  - b. For inanimate movement such as falling water, swirling smoke, leaping flames, dripping blood.
  - c. For abstract forces outside a human or animal figure which are acting on him in some way so that he is powerless.
  - d. For tension or gravity clearly expressed.
  - e. For a phallic force accompanying a phallic symbol.
  - f. For human or animal faces or figures or masks that are horrible, frightening, sinister, or gruesome, even when the wording of the response suggests that the facial expression is the basis for this effect.
  - g. For a human detail used abstractly or symbolically rather than as part of a human being in action.
  - h. For spiritual, psychic or abstract forces.

## APPENDIX II

CODE: \_\_\_\_\_ SEX: \_\_\_\_\_ SCHOOLING: \_\_\_\_\_ R: \_\_\_\_\_ FE: \_\_\_\_\_  
AGE: \_\_\_\_\_ RACE: \_\_\_\_\_ IQ: \_\_\_\_\_ T/R: \_\_\_\_\_ SEX: \_\_\_\_\_ DATE: \_\_\_\_\_

[illegible]

### APPENDIX III

#### DEFINITIONS FOR SCORING EXPANSIVENESS OF MOVEMENT RESPONSES

The basic definition of the six degrees of expansiveness employed for rating the amount and kind of energy expended in the movement responses given by the psychoneurotics is presented below. This schema was originally suggested by Piotrowski (1957, pp. 195-196). However, when this system was put to use, further clarification was called for and also decisions had to be made as to where to place certain responses which did not fall obviously into one of the categories. Therefore, Appendix IV is included as a further exemplification of the way in which this system was employed.

Degree	Definition
1	Every response which expresses clear aggression, whether it be a part or whole percept.
2	Active movements of whole bodies in which the effect of gravity is overcome, but in which there is no apparent suggestion of aggression. The body must move in space and must assert itself against the downward pull of gravity.
3	Active movements in which only part-body action is involved and in which the effect of gravity is overcome with no suggestion of aggression.
4	Restrained movement, that is, posture and movement that is forcibly restrained whether it be for the whole or part-body.
5	Active compliant movement, i.e., responses in which the whole or part-body actively gives in to the force of gravity.
6	Passive and plainly submissive movements.



## APPENDIX IV

### CLARIFICATION AND EXAMPLES FOR SCORING EXPANSIVENESS

1. If the degree of expansiveness was changed in the Inquiry from that given in the Response Proper, the one given originally was scored as main and the one occurring in the Inquiry was placed in red under the appropriate degree.
2. When two degrees of expansiveness occurred in the Response Proper, the one which was secondary was encircled and did not enter in the final tallying of the data. For example, "two men standing (Degree 4) there or maybe they could be dancing (Degree 2)" would be given a primary degree 4 and a secondary degree of 2.
3. In those cases in which one movement percept involved two possible degrees of expansiveness, the tendency was to score it under the more active of the two. For example, "two men leaning over (Degree 5) and picking something up (Degree 2)" would be scored under Degree 2.
4. "Facing" was not considered a movement response and hence was not scored.

### Examples

#### Degree 1

##### M:

- a. men fighting
- b. women turning up their noses at each other
- c. man ready to strike with a club
- d. two people pulling apart something (in an aggressive way)
- e. threatening facial expressions ("witches, horrible expression, out to get somebody")

##### FM:

- a. insects eating away flowers
- b. animals glaring at each other
- c. octopus grasping something, thrashing to get something
- d. leopards crouching, ready to attack something

##### m:

- a. volcanoes with fire bubbling out
- b. atom bomb explosions

Degree 2 (included in this degree are also examples of "trying" to overcome the force of gravity)

M:

- a. walking, dancing
- b. man drifting out of Aladdin's lamp
- c. men trying to lift something

FM:

- a. animal stepping, climbing, crossing a stream
- b. animal flying
- c. animal trying to climb

m:

- a. flames, rising like smoke
- b. fountain sprays coming out
- c. blood streaming
- d. clouds floating

Degree 3

M:

- a. women talking over a fence
- b. pointing finger
- c. foot kicking
- d. somebody looking up
- e. goblins with mouth open

FM:

- a. two animals playing patty-cake
- b. turtle sticking neck out
- c. bears kissing

m:

- a. only rarely would m be scored under this degree because the majority of inanimate movements were considered as whole responses

Degree 4

M:

- a. man with legs and hands tied together
- b. balancing, hanging
- c. sitting, standing
- d. people looking at each other
- e. facial expression (except those which were aggressive and scored as Degree 1)
- f. In general, "stopped" movement is placed here, e.g., man getting ready to show people his wing form.

FM:

- a. animals with horns locked together
- b. an animal on the alert
- c. animals with noses or trunks together

m:

- a. a bear skin pulled taut
- b. mask grinning

#### Degree 5

M:

- a. men bowing to each other
- b. two people leaning over a table
- c. elf stooped over

FM:

- a. bird falling through the air
- b. animal bending over
- c. animal falling backwards

m:

- a. an object falling
- b. blood dripping from a wound
- c. leaves sort of drifting down

#### Degree 6

M:

- a. people sleeping on a hillside
- b. child kneeling
- c. hands in prayer (unless qualified further)
- d. arms raised begging for help

FM:

- a. a dog begging
- b. cows resting on the grass
- c. rats lying on backs

m:

- a. none

## APPENDIX V

### SCORING THE POPULAR AND ORIGINAL RESPONSE

Since in the present thesis the concern was with movement responses alone, the scoring of populars and originals was defined to include the basic percept given plus movement. There were no populars or originals scored for inanimate movement.

The following areas were set up as popular M and FM movement responses:

Card		Card
I	(M) $D_1$	II (FM) $D_3$ or W
III	(M) W, $W_8$ , or $D_8$	V (FM) W or $W_8$
VII	(M) $D_3$ , $D_4$ , or W	VIII (FM) $D_1$ , W, or W

Originals were scored according to the usual standard of occurrence--once in 100 records. For this scoring, as is stated above, the originality of the movement was taken into consideration either with the stated concept or apart from it.

TABLE XIV

Results from the t-Test<sup>a</sup> Run on Subgroups for Three Rorschach Variables

	R			M			FM		
	Mean	Sigma	t	Mean	Sigma	t	Mean	Sigma	t
Male White									
Subgroup I (N = 43)	21.21	11.25	.354	2.05	4.73	.398	2.58	5.33	.057
Subgroup II (N = 16)	22.50	14.85		1.56	1.75		2.50	2.24	
Female White									
Subgroup I (N = 48)	18.25	8.40	1.49	1.38	3.99	1.17	1.90	4.76	.52
Subgroup II (N = 20)	23.10	18.05		2.60	2.34		2.50	3.02	
Female Negro									
Subgroup I (N = 13)	22.16	11.07	1.29	2.0	1.84	.083	1.77	1.10	1.33
Subgroup II (N = 8)	16.50	5.19		1.38	1.00		1.0	1.41	

<sup>a</sup>Formula used:

$$t = \frac{M_1 - M_2}{\left( \frac{N_1 \sigma_1^2 + N_2 \sigma_2^2}{N_1 + N_2 - 2} \right) \left( \frac{N_1 + N_2}{N_1 N_2} \right)}$$

TABLE XV

Frequency and Per Cent of Number of Responses for the Male White Group

Responses per card	Card Number																			
	I		II		III		IV		V		VI		VII		VIII		IX		X	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Reject			2	3	1	2	1	2	2	3	4	7	6	10			7	12	4	7
1	22	37	24	41	21	36	30	51	32	54	27	46	26	44	24	41	24	41	16	27
2	18	31	20	34	17	29	14	24	14	24	15	25	15	25	15	25	10	17	6	10
3	9	15	7	12	14	24	6	10	5	8	5	8	8	14	9	15	8	14	12	20
4	7	12	2	3	2	3	2	3	3	5	4	7	2	3	8	14	7	12	4	7
5	2	3	2	3	2	3	2	3	2	3	2	3			1	2	2	3	7	12
6	1	2	1	2	2	3	1	2					1	2	1	2			1	2
7							1	2			1	2			1	2	1	2	5	8
8							1	2											2	3
9							1	2			1	2	1	2					1	2
10									1	2										
11			1	2																
12																			1	2

TABLE XVI

Frequency and Per Cent of Number of Responses for the Female White Group

Responses per card	Card Number																			
	I		II		III		IV		V		VI		VII		VIII		IX		X	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Reject	1	1	9	13	2	3	2	3	1	1	14	21	5	7	1	1	12	18	4	6
1	23	34	33	49	35	51	37	54	41	60	30	44	37	54	27	40	29	43	21	31
2	24	35	13	19	11	16	21	31	17	25	15	22	14	21	23	34	11	16	7	10
3	9	13	9	13	13	19	4	6	5	7	6	9	5	7	11	16	7	10	6	9
4	4	6	2	3	3	4	2	3	1	1	1	1	5	7	2	3	3	4	9	13
5	2	3	1	1	3	4	1	1	1	1	1	1	2	3	2	3	3	4	4	6
6	2	3			1	1			1	1					1	1	1	1	5	7
7	2	3	1	1					1	1	1	1							4	6
8															1	1	1	1	2	3
9	1	1															1	1	2	3
10							1	1											2	3
11																			1	1
12																			1	1

TABLE XVII

Frequency and Per Cent of Number of Responses for the Female Negro Group

Responses per card	Card Number									
	I f %	II f %	III f %	IV f %	V f %	VI f %	VII f %	VIII f %	IX f %	X f %
Reject		1 5	1 5	1 5	1 5	4 19			3 14	
1	6 29	8 38	9 43	11 52	13 62	11 52	11 52	9 43	8 38	3 14
2	7 33	7 33	6 29	3 14	4 19	2 10	6 29	7 33	4 19	5 24
3	5 24	4 19	2 10	4 19	1 5	1 5	3 14	2 10	4 19	5 24
4	3 14		2 10		1 5	3 14	1 5	1 5	2 10	3 14
5			1 5	2 10	1 5			1 5		1 5
6								1 5		2 10
7										1 5
8		1 5								1 5
9										
10										
11										
12										



TABLE XVIII

The Per Cent of Each Type of Movement Which Occurs as Additional for the Male White Group

Card No.	M				FM				m			
	Main	Add'l	Total	Add'l %	Main	Add'l	Total	Add'l %	Main	Add'l	Total	Add'l %
I	9	3	12	25	8	8	16	50	0	3	3	100
II	9	5	14	36	19	12	31	39	3	1	4	25
III	36	10	46	22	11	5	16	31	0	1	1	100
IV	7	0	7	0	10	7	17	41	2	0	2	0
V	9	1	10	10	20	16	36	44	1	2	3	67
VI	4	0	4	0	5	3	8	38	0	0	0	0
VII	12	3	15	20	16	2	18	11	3	2	5	40
VIII	4	2	6	25	25	21	46	46	0	0	0	0
IX	15	3	18	17	3	2	5	40	9	1	10	10
X	8	0	8	0	34	17	51	33	3	2	5	40

TABLE XIX

The Per Cent of Each Type of Movement Which Occurs as Additional for the Female White Group

Card No.	M				FM				m			
	Main	Add'l	Total	Add'l %	Main	Add'l	Total	Add'l %	Main	Add'l	Total	Add'l %
I	11	7	18	39	3	17	20	85	3	3	6	50
II	12	4	16	25	28	10	38	26	3	5	8	63
III	35	10	45	22	2	9	11	82	3	2	5	40
IV	9	1	10	10	7	9	16	56	2	0	2	0
V	10	2	12	17	14	16	30	53	0	0	0	0
VI	4	0	4	0	5	5	10	50	1	0	1	0
VII	19	5	24	21	16	8	24	33	0	2	2	100
VIII	4	1	5	20	28	18	46	39	0	1	1	100
IX	7	4	11	36	7	2	9	22	15	1	16	6
X	7	3	10	30	31	33	64	52	2	1	3	33

TABLE XX

The Per Cent of Each Type of Movement Which Occurs as Additional for the Female Negro Group

Card No.	M				FM				m			
	Main	Add'l	Total	Add'l %	Main	Add'l	Total	Add'l %	Main	Add'l	Total	Add'l %
I	5	1	6	17	1	3	4	75	0	0	0	0
II	7	3	10	30	4	3	7	43	1	0	1	0
III	11	3	14	21	2	2	4	50	0	0	0	0
IV	2	1	3	33	3	4	7	57	0	0	0	0
V	2	0	2	0	2	5	7	71	0	0	0	0
VI	1	0	1	0	1	1	2	50	0	0	0	0
VII	3	0	3	0	4	5	9	56	1	0	1	0
VIII	0	0	0	0	9	7	16	44	1	0	1	0
IX	5	1	6	17	1	0	1	0	1	2	3	67
X	1	0	1	0	4	10	14	71	0	3	3	100

TABLE XXI

Frequency and Per Cent of Whole M and Part M for Three Psychoneurotic Groups

Card No.	Male White				Female White				Female Negro			
	Pt	Pt %	Wh	Wh %	Pt	Pt %	Wh	Wh %	Pt	Pt %	Wh	Wh %
I	2	22	7	78	2	18	9	82	2	40	3	60
II	0	0	9	100	0	0	12	100	1	14	6	86
III	3	8	33	92	0	0	35	100	0	0	11	100
IV	2	29	5	71	4	44	5	56	1	50	1	50
V	5	56	4	44	3	30	7	70	2	100	0	0
VI	1	25	3	75	2	50	2	50	0	0	1	100
VII	6	50	6	50	4	21	15	79	1	33	2	67
VIII	2	50	2	50	4	100	0	0	0	0	0	0
IX	5	33	10	67	2	29	5	71	1	20	4	80
X	1	13	7	88	1	14	6	86	0	0	1	100

TABLE XXII

Frequency and Per Cent of Whole FM and Part FM for Three Psychoneurotic Groups

Card No.	Male White				Female White				Female Negro			
	Pt	Pt %	Wh	Wh %	Pt	Pt %	Wh	Wh %	Pt	Pt %	Wh	Wh %
I	0	0	8	100	2	67	1	33	0	0	1	100
II	3	16	16	84	7	25	21	75	1	25	3	75
III	0	0	11	100	1	50	1	50	1	50	1	50
IV	2	20	8	80	2	29	5	71	0	0	3	100
V	2	10	18	90	0	0	14	100	1	50	1	50
VI	1	20	4	80	0	0	5	100	0	0	1	100
VII	4	25	12	75	3	19	13	81	0	0	4	100
VIII	1	4	24	96	0	0	28	100	0	0	9	100
IX	0	0	3	100	0	0	7	100	1	100	0	0
X	2	6	32	94	1	3	30	97	0	0	4	100

TABLE XXIII

Frequency of Main and Additional M and FM Expansiveness for the Male White Group

		M Expansiveness						FM Expansiveness					
		1	2	3	4	5	6	1	2	3	4	5	6
I	Main Add'l		5	2	1		1	2	3	2	1		
				1	2			1	6	1			
II	Main Add'l	2	5	1	1			4	4	4	7		
			1	1	2	1		2	2	3	5		
III	Main Add'l	3	17	6	6	4		2	3	1	5		
			3	4	2	1		1	1	1		2	
IV	Main Add'l		2	1	2		2	2	4	3		1	
									2	1	3		1
V	Main Add'l			2	2	1	4	3	15	1			1
							1		11		4		1
VI	Main Add'l				4				4		1		
									2				1
VII	Main Add'l		4	4	4			5	4	5	2		
		1		1	1					1	1		
VIII	Main Add'l			1	2		1	3	17	1	4		
					2			1	8	2	10		
IX	Main Add'l	3	4	3	4	1		1		1		1	
				1	2						1		1
X	Main Add'l	2	2	1	3			9	15	6	4		
								2	5	3	3		

TABLE XXIV

Frequency of Main and Additional M and FM Expansiveness for the Female White Group

		M Expansiveness						FM Expansiveness					
		1	2	3	4	5	6	1	2	3	4	5	6
I	Main		4	5	2				1	2			
	Add'l		2	4	1			1	10	2	4		
II	Main		7	5				7	6	6	8		1
	Add'l		2	1	1			2		3	5		
III	Main	4	19	5	4	3				1		1	
	Add'l		2	1	4	3			4		5		
IV	Main		1	4	2	1	1	2	2	1	1		1
	Add'l				1				3	2	4		
V	Main		1	3	4		2	2	9		1		2
	Add'l				1		1		12	3	1		
VI	Main			2	2			1	2	1	1		
	Add'l							1	1	3			
VII	Main	2	7	3	7			2	4	3	7		
	Add'l			4	1				1	2	5		
VIII	Main			3			1	1	23	1	3		
	Add'l	1						3	11		4		
IX	Main		2	2	2		1	1	1	1	4		
	Add'l	1		1	2			1		1			
X	Main	1	1	4	1			6	10	5	10		
	Add'l		1	2				3	19	4	7		

TABLE XXV

Frequency of Main and Additional M and FM Expansiveness for the Female Negro Group

		M Expansiveness						FM Expansiveness					
		1	2	3	4	5	6	1	2	3	4	5	6
I	Main		2		3						1		
	Add'l			1					2		1		
II	Main	1	1	3	2				1	2	1		
	Add'l			1	2					2		1	
III	Main		4	2	3	2			1		1		
	Add'l		2			1			1		1		
IV	Main				2			1	1		1		
	Add'l				1				2		1		1
V	Main			1	1				2				
	Add'l								4		1		
VI	Main		1					1					
	Add'l								1				
VII	Main		2	1				1		1	2		
	Add'l								1	2	2		
VIII	Main							1	6	1	1		
	Add'l							1	4	1	1		
IX	Main		3	1			1				1		
	Add'l			1									
X	Main		1					1	1		1		1
	Add'l							3	4	1	2	1	



TABLE XXVI

Frequency of Main and Additional m Expansiveness for Three Groups of Psychoneurotics

	Male White						Female White						Female Negro					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
I Main							1	1		1								
I Add'l		2		1			1	2										
II Main	2	1					1	2										
II Add'l		1						3			2			1				
III Main								2										
III Add'l		1						2										
IV Main		1			1			1		1								
IV Add'l																		
V Main				1														
V Add'l		1		1														
VI Main		2		1				1										
VI Add'l		2																
VII Main														1				
VII Add'l								2										
VIII Main																		
VIII Add'l											1			1				
IX Main	7	2					5	9			1			1				
IX Add'l	1							1						2				
X Main		3						2										
X Add'l		1			1						1						3	

TABLE XXVII

Frequency of M Projected Sex for Three Psychoneurotic Groups

Card No.	Male White					Female White					Female Negro				
	Sa	Op	Ei	N	Bth	Sa	Op	Ei	N	Bth	Sa	Op	Ei	N	Bth
I	1	3		5		3	3	1	3	1	1	2		2	
II	1	1		7		2	2		7	1	1	2		4	
III	11	12		12	1	8	15		12		3	4		4	
IV	4	2		1			2		7			2			
V	3	1	1	4		3	2		5		1			1	
VI	2			2		1	1		2					1	
VII		6		6		9		1	8	1	3				
VIII		3		1			1		3						
IX	5	3		7		3			4		2			3	
X	2	2		4		1	1		5						1

TABLE XXVIII

Frequency of M Age Level for Three Psychoneurotic Groups

Card No.	Male White			Female White			Female Negro		
	C	A	OP	C	A	OP	C	A	OP
I	1	8			11			5	
II		8	1		12			7	
III		36			35		2	9	
IV		6	1		9			2	
V	1	7	1	2	7	1	1	1	
VI	1	3			4			1	
VII	4	8		6	13		1	2	
VIII		4			4				
IX	1	14		1	6			5	
X		7	1		7			1	

C = Child; A = Adult; OP = Old Person

TABLE XXIX

Frequency and Per Cent of Popular and Original Main Movement

Responses for Three Groups of Psychoneurotics

Card No.	Male White					Female White					Female Negro				
	Total M and FM	P	P%	O	O%	Total M and FM	P	P%	O	O%	Total M and FM	P	P%	O	O%
I	17	2	12	1	6	14	4	29			6	1	17	1	17
II	28	12	43	3	11	40	19	48	2	5	11	3	27	3	27
III	47	29	62	4	9	37	34	92	1	3	13	10	77	1	8
IV	17			6	35	16			3	19	5				
V	29	12	41	3	10	24	8	33	2	8	4	1	25		
VI	9			4	44	9			3	33	2			1	50
VII	28	7	25	2	7	35	12	34	3	9	7	2	29	1	14
VIII	29	21	72	5	17	32	27	84	4	13	9	9	100		
IX	18			6	33	14			6	43	6			3	50
X	42			4	10	38			4	11	5			2	40

## APPROVAL SHEET

The thesis submitted by Margaret Ann Jacobs 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.

July 7, 1960  
Date

Frank H. Hobler  
Signature of Adviser