

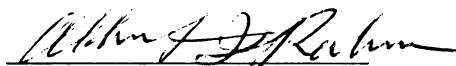
SOME SYMBOLIC MEANINGS OF
THE RORSCHACH INKBLOTS

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
Harold B. Davis
1961

This is to certify that the
thesis entitled
Some Symbolic Meanings of
the Rorschach Inkblots
presented by
Harold B. Davis

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology


Major professor

Date Nov. 22, 1961

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ABSTRACT

SOME SYMBOLIC MEANINGS OF THE RORSCHACH INKBLOTS

by Harold B. Davis

The present study was based upon inferences which arose from clinical experience in the use of the Rorschach inkblots. These inferences involved two levels of symbolism for the Rorschach inkblots. On the manifest level, it was hypothesized that the Rorschach inkblots were similar to verbal concepts that are descriptive of dream images. On the latent level, it was hypothesized that the Rorschach inkblots were symbolic of certain concepts which may motivate the production of the manifest concepts representing dream images.

A review of the Rorschach literature was undertaken and a specific manifest level concept and a specific latent level concept was hypothesized for each of eight Rorschach cards. Two cards, V and X, were excluded since there is no specific hypothesis for them in the literature. In total there were thirty-two stimuli, composed of an equal number of Rorschach cards, manifest level concepts, latent level concepts, and control concepts.

The first hypothesis involved the following: If the Rorschach cards have symbolic meanings representative of the verbal concepts descriptive of dream images, it was held that each Rorschach card should be more similar in meaning to its hypothesized manifest level concept than any other manifest level concepts and appropriate controls.

The second hypothesis involved the following: If the Rorschach cards have symbolic meanings which may motivate the production of the manifest concepts represented in dream images, then each Rorschach card should be more similar to its hypothesized latent level concept than to any other latent level concepts and appropriate controls.



The semantic differential, containing 20 scales, was used to measure the meaning of the 32 stimuli. The adequacy of using the semantic differential for the present study was discussed in the light of published research data.

The subjects were 90 undergraduates at Michigan State University, with an equal number of both sexes. The subjects were required to rate each Rorschach card and verbal concept on the same scales of the semantic differential. The Rorschach cards and verbal concepts were projected onto a screen by means of an opaque projector. The order of presentation was balanced to lessen serial effects.

The D-score was used as a measure of similarity between stimuli. The D-score was computed between each Rorschach card and each manifest, latent, and control concept for each subject. A matrix was set up for each Rorschach card and the verbal concepts of one level. This was done for each Rorschach card on both levels which resulted in a total of 16 matrices. For each Rorschach card and its hypothesized relationship on one level, a sign test was computed between the column of D-scores representing the predicted relationship and all the other columns of D-scores in the matrix. The other columns represented the D-scores for the relationship of a particular Rorschach card to each of the other verbal concepts of that level and the appropriate control concepts.

The obtained results show that Rorschach cards III and IV have stimulus properties which are similar to verbal concepts that are descriptive of dream images. The results for the other cards do not support the hypothesis, but in some cases suggest some patterns of concepts which the Rorschach card and its predicted concept could not exclude. Thus, six of the Rorschach cards could possibly have symbolic meanings that are representative of the specific dream images hypothesized in this study, but the present study does not demonstrate these symbolic meanings.

The results for the latent level concepts show that for none of the Rorschach cards is the hypothesis supported. The results are in the predicted direction for Cards III and VII. Thus, the present data does not show the Rorschach cards to have the specific latent symbolic meanings hypothesized in this study. Several reasons were suggested for the partial failure to support the first hypothesis and the failure to support the second one. Two reasons were emphasized--the lack of universal meaning to the dream images and the stringent test of the hypothesis.

Additional results suggest some sex differences with respect to the support of the hypothesis on specific Rorschach cards.

A comparison was made between each manifest level concept and its allegedly related latent level concept. This relationship was clearly supported for only one pair, "queen" to "a pleasing mother". The assumed relationships between the other manifest level concepts and their corresponding latent level concepts were not as clearly demonstrated.

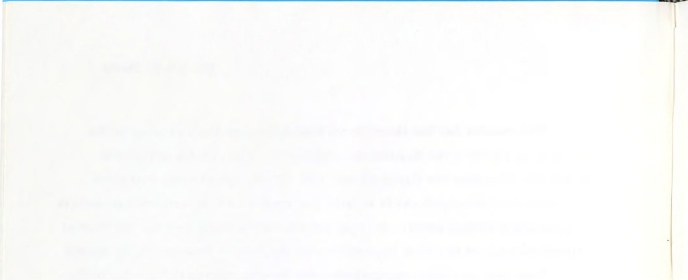
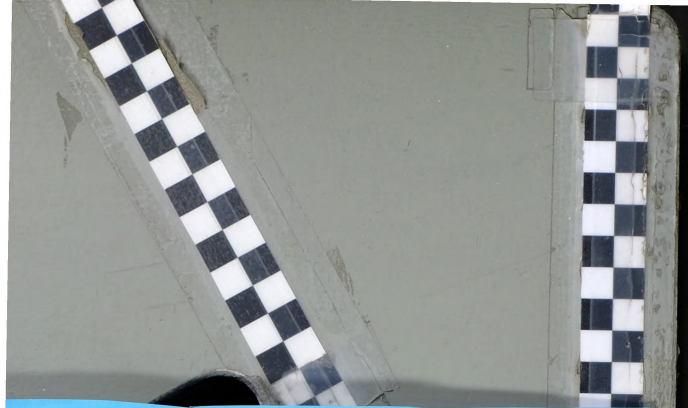
The implications of the results in this study for future research were discussed.

Approved

Albert I. Rabin
Dr. A. I. Rabin, Chairman

Date

Nov. 22, 1961



SOME SYMBOLIC MEANINGS OF THE RORSCHACH INKBLOTS

By
Harold B. Davis

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1961



G 20891
5/24/62

DEDICATION

to G
who struggled with life
and lost:
and to my wife
with whom
life
is a meaningful expression of
my-self

ACKNOWLEDGMENT

The doctoral dissertation represents the culmination of one's graduate study. As such, it represents the fusion of many influences during one's graduate study. It is only possible here to acknowledge those who have been directly involved with this dissertation. An especial indebtedness is felt to Dr. A. I. Rabin without whose own research this study would not have been conceived. In addition, as my academic advisor and chairman of my thesis committee, he has been a mainstay of my academic training. Gratitude is felt for his many acts of aid on this dissertation.

Acknowledgment is also due to Dr. Terrence Allen who devised the statistical tool for this study and who helped clarify the analysis. Indebtedness is also felt to Drs. Donald Grummon and Alfred Dietze for their help throughout my dissertation and graduate career.

I am indebted to Mr. James H. Clark for his help with the K-3M program. I also wish to acknowledge the services of MISTIC without which this study could not have been done.

I also wish to acknowledge the help of Miss Martha G. Andrews in the typing of preliminary manuscripts under severe deadlines.

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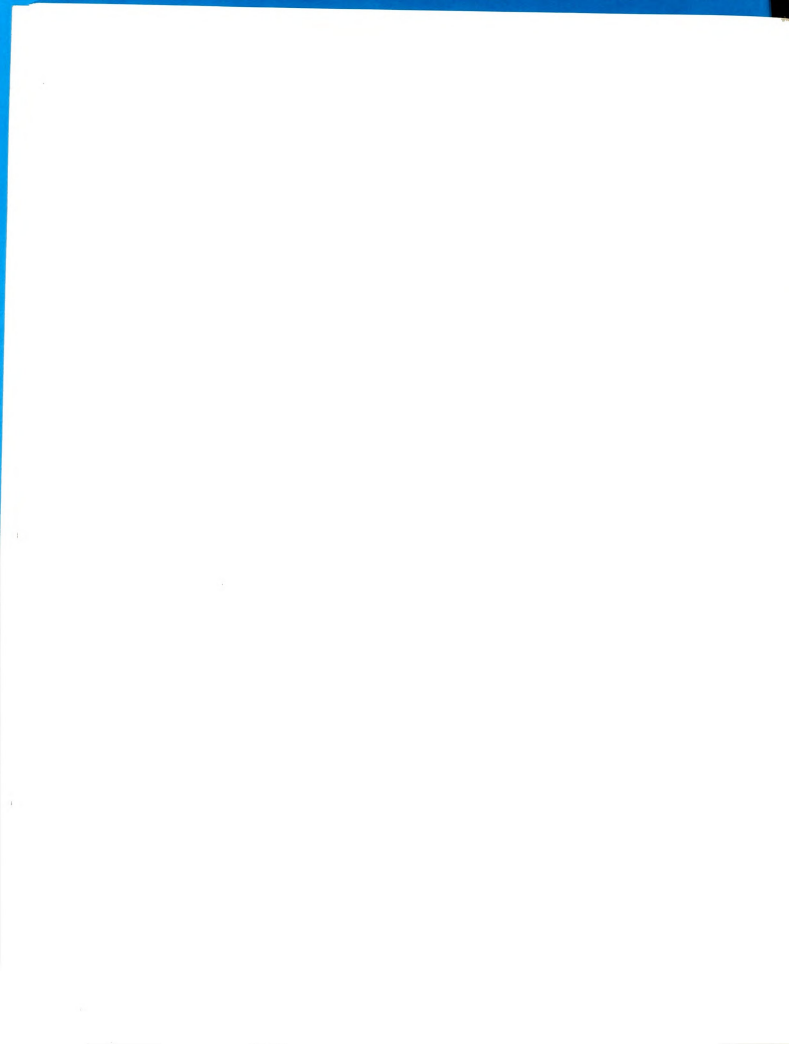
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INTRODUCTION

Within recent years investigators such as Phillips and Smith (1953), Schafer (1954), and Symonds (1955) have been interested in the symbolic meaning of Rorschach responses. This interest has reflected a general trend by Rorschach experts to use content as their data for diagnosis rather than the formal interpretation of the inkblots (Symonds, 1955). In view of the fact that Rorschach (1942) did not emphasize the importance of content, this trend must come from another source.

Piotrowski (1957, 1958) considers psychoanalytic theory the impetus for symbolic interpretations of the Rorschach content. Most writers (Bellak, 1958; Brown, 1953; Earl, 1941; Fries, 1958; Fromm, 1958; Hertzman and Pearce, 1947; Lindner, 1946; Palm, 1956; Phillips and Smith, 1953; Schafer, 1953; 1954) who deal with content on interpretations take a psychoanalytic viewpoint. This kind of content interpretation has not been along the traditional lines (human, animal, etc.), but along principles of symbolism in psychoanalytic theory.

Meaning of a Psychoanalytic Symbol:

Freud (1960, 1938) and Jones (1950) limited the term symbol in psychoanalysis to a restricted type of representation which would primarily be found in dreams. They did not deny that representational processes occurred in the secondary processes, but they did not use the term symbol in psychoanalysis to refer to this type of representation. Thus they distinguished their symbol from that of mathematics where the investigator is consciously aware of the representational process. Jones (1950) emphasized this distinction and defined the psychoanalytic symbolization process as an ". . . automatic substituting of a concrete idea characteristically in



the form of its sensorial image, for another idea which is more or less difficult of access, which may be hidden or even quite unconscious, and which has one or more attributes in common with the symbolizing idea" (pp. 137-138, ital. mine). The specific conditions underlined would limit the term symbol in the psychoanalytic sense to representational processes which were primarily unconscious.

Recent Psychoanalytic Writings:

The ego psychologists (Dixon, 1956; Glover, 1956; Hendrick, 1951; Kubie, 1953; Rodrigue, 1956; Rycroft, 1956) have opposed this limited definition of a psychoanalytic symbol since it only represents one level of functioning, namely the unconscious. For example, Glover (1956) states that Jones' limited definition of a psychoanalytic symbol is in practice a difficult decision to make. As a result they do not limit the term symbol to the unconscious level of symbolization, but emphasize that the symbolization process takes place on the preconscious and conscious levels as well. In addition, the ego psychologist emphasizes that a psychoanalytic symbol must be communicated via secondary process such as language; and, therefore, is influenced by the secondary processes.

More recently Hall (1953) has reanalyzed the issue of different levels of the symbolization process. He considers all symbolization processes as a part of the cognitive structure. Dreams and languages would represent two different ways the cognitive structure operates. Dreams would be the cognitive process as represented by imagery; whereas language would be cognition via verbal skills. The term, symbol, is not limited to any one way of thinking. Furthermore there is a relationship between the two ways of cognition since the images are primarily communicated to another person through language. Benda (1960) clarifies this point by stating:

. . . unconscious experiences have to be first translated into conscious concepts in order to be communicated. . . . therefore the experience itself is modified by the meaning conveyed to each experience at the time of occurrence. Thus the previous dichotomy of unconscious and conscious will have to be given up in favor of another polarity; imagery and conceptual meanings which structure the grouping of imagery. (p. 260)

Thus the important issue is the relationship between the images and verbal concepts.

Relationship of Images to Verbal Concepts:

According to several writers (Glover, 1956; Hendrick, 1951; Hodges, 1954) the developing child organizes the many stimuli into patterns to which verbal concepts are attached. Thus a complex of sensations and perceptions are integrated into an image of mother even before the word mother is learned. The development of the image from the fragmentary percepts and then the attachment of the concept, mother, is dependent upon the perceptual and conceptual skills of the child; but it is not independent of the interpersonal situation. If the percepts associated with the image of mother are threatening, then the image of mother, when one is constructed, would also be threatening. Similarly, the word mother would evoke some feelings of threat when it becomes attached to the image. The particular meaning of any image would thus depend upon the individual's particular experience (Benda, 1960).

This last point has been succinctly made by Osgood et al. (1957) who state:

It is apparent that, according to this view, the meanings which different people have for the same signs (symbols) will vary to the extent that their behaviors towards the things signified have varied. This is because the composition of the representational process--which is the meaning of the sign--is entirely dependent upon the nature of the total behavior occurring while the sign is being established. Given the essential sameness of human



organisms and the stability of physical laws, of course, the meanings of most primary perceptual signs should be quite constant across the individual (e.g., the significance of the visual cues arising from the APPLE object). Given stability of learning experiences within a particular culture, also, meanings of most common verbal signs will be highly similar (e.g., the adjective sweet will be heard and used in much the same types of situations regardless of the individual in our culture). On the other hand, the meanings of many signs will reflect the idiosyncrasies of individual experience, as for example, the meanings of FATHER, MOTHER and ME for the individuals growing up in "healthy" vs. "unhealthy" home environments. (p. 9)

Thus the verbal concept, mother, as well as the image of mother would evoke a similar meaning which should depend upon the subject's own interaction with his mother. Since imagery and language are two ways of thinking, an image and a verbal concept which both represent the same referent should have similar meanings. Furthermore as Benda (1960) has stated above, verbal meanings structure imagery since one must use language to communicate the image. Thus the verbal concept attached to the image should be related to another verbal concept, if the image is said to be symbolic of the other verbal concept. For example, the concept queen should be more related to the concept a pleasing mother than other concepts since, according to psychoanalytic theory, the image of a queen in a dream is symbolic of a pleasing mother.

Relationship of Rorschach Inkblots to Psychoanalytic Symbolism:

Since the theoretical considerations mentioned previously have dealt primarily with the symbolic meaning of visual imagery in dreams, it is necessary to consider whether responding to the Rorschach proceeds along lines similar to the production of dream images. This whole question has recently been the concern of several writers (Brown, 1953; Edmonston and Griffith, 1958; Fosberg, 1949; Fromm, 1958; Jacob, 1944; Lindner, 1946; Minders, 1955; Palm, 1956; Schafer, 1953, 1954), and the basis



for several empirical studies (Earl, 1941; Goldfarb, 1945; Guertin and Trembath, 1953; Hirschstein and Rabin, 1955; Meer and Singer, 1950; Rosen, 1951; Sandler and Ackner, 1951). In dreams there is no external stimulus, but rather the subject creates the image from internal sources. Freud (1938) has shown that the process of creating dream imagery follows certain rules, e.g., condensation, displacement, etc.

The Rorschach inkblots, on the other hand, are presented to the subject as an external stimulus. The relatively unstructured nature of the blots does permit the subject, at times, freedom to proceed along lines similar to the production of dream imagery. However, there are always the external stimulus properties. Thus in interpreting the stimulus properties of the Rorschach inkblots to produce a response, the subject may utilize similar principles as in dream imagery. Palm (1956) and Schafer (1953, 1954), independently, have used Kris' (1952) concept of "regression in the service of the ego" to account for symbolism in the Rorschach. Both authors indicate that the symbolization process on the Rorschach is similar to the one of dreams although the level of regression is not as great. For example, Palm (1956) states that the Rorschach inkblot is a condensed image as is a dream picture. Schafer (1954) clarifies the relationship to dreams by stating: ". . . by virtue of its spread along the dream-perceiving continuum, the Rorschach response may and often does simultaneously bear the imprint of primitive, unrealistic and unconscious processes (p. 92, ital. his). These points have been agreed to by Brown (1953) who states that symbolism in the Rorschach is basically no different from dream analysis, and by Phillips and Smith (1953) who add the reservation that the level of symbolism is not as deep as in dreams.

While some of the responses are relatively structured (Card V as a bat), the Rorschach inkblots apparently have stimulus properties which



do permit a symbolization process similar to dreams. Although the concern (Palm, 1956; Schafer, 1953, 1954) has been mainly with the symbolic representation of the response, there has been some interest with the stimulus properties of the inkblots themselves which permit such symbolization (Bochner and Halpern, 1945; Brown, 1953).

Summary:

The importance of the recent writers cited above on the meaning of a symbol is that they substitute for the arbitrary distinction of the unconscious and conscious, the states of imagery and conceptual thought. The term, symbol, is not limited to the unconscious level, but is seen as operating on the preconscious and conscious levels too. Furthermore, these writers indicate that imagery if it is to be communicated to another person must be done through language. It is therefore theoretically feasible to investigate the relationship of imagery as described by verbal concepts to other verbal concepts which the images are hypothesized to symbolize. The relationship of the response to the Rorschach inkblots to psychoanalytic symbols was reviewed.



STIMULUS VALUE OF THE RORSCHACH INKBLOTS

Studies Based on Perceptual Experiments:

Empirically and theoretically there is reason to assume that each of the Rorschach cards have unique stimulus properties. The term "card-pull" refers to the fact that there are certain expected scores on the formal aspects (Ranzoni, *et al.*, 1950).

Klein and Arnheim (1953) support the idea that the Rorschach cards have particular stimulus properties. They state: "But an outstanding perceptual feature of the ten standardized cards is that--due mainly to their symmetry--they offer to the first glance a striking total picture which is far from being unstructured" (p. 61). One of the factors of this structure is the tendency to perceive the card as a whole or part. The authors indicate that cards IV and X differ in that the former presents a greater tendency for a whole response. Card I is considered to present an image of homogeneous blackness. Arnheim (1951) states that the content given to the Rorschach cards is dependent upon ". . . the shapes, directions, brightness values, etc." (p. 266). Partial substantiation of this position is present in studies that have shown significant changes in Rorschach performance as a result of experimental manipulation of such variables as hue, brightness, etc. (Balloch, 1953; Baughman, 1954, 1958). It appears reasonable to assume that the symbolism in the Rorschach would be determined by the stimulus properties.

Symbolic Meanings of the Rorschach Cards:

There have been various hypotheses arising primarily from clinical experience regarding the symbolic meaning of particular cards. A summary of such hypotheses is presented in Table 1. It will be the primary concern

Table 1. Meanings Attributed to the Rorschach Cards

Card	Reference	Meaning Attributed
I	Brown, (1953)	stern, matronly quality
	Davis and Bonier, (1960)	witch
	Schleifer and Hire, (1960)	rejecting mother card
II	Brown, (1953)	childhood experience
	Davis and Bonier, (1960)	emotional security
	Rosen, (1951)	
	Meer and Singer, (1950)	father (second choice)
	Phillips and Smith, (1953)	sympathetic father
III	Brown, (1953)	identification
	Hertzman and Pearce, (1947)	
	Brown, (1953)	social interaction (co-operation and competition)
	Davis and Bonier, (1960)	rivalry
	Brown, (1953)	female sex organ
	Davis and Bonier, (1960)	
IV	Bochner and Halpern, (1945)	father
	Meer and Singer, (1950)	
	Rosen, (1951)	
	Taniguchi <i>et al.</i> , (1958)	
	Klopter, <i>et al.</i> , (1954)	male aggressive authority
	Rosen, (1951)	male aggressiveness
	Hirschstein and Rabin, (1955)	parental card
	Davis and Bonier, (1960)	a punishing father
	Davis and Bonier, (1960)	monster
	Sines, (1960)	

Continued



Table 1 - Continued

Card	Reference	Meaning Attributed
VI	Guertin and Trembath, (1953) sex cards	
	Pascal, <u>et al.</u> , (1950)	
	Piotrowski, (1957)	
	Shaw, (1948)	
	Davis and Bonier, (1960)	male sex organ
	Pascal <u>et al.</u> , (1950)	
	Piotrowski, (1957)	
	Rosen, (1951)	male sexuality
VII	Shaw, (1948)	masculinity
	Brown, (1953)	broader sense of sexuality i.e., libidinal feelings
	Bochner and Halpern, (1945) mother	
	Little, (1959)	
	Meer and Singer, (1950)	
	Taniguchi <u>et al.</u> (1958)	
	Klopter <u>et al.</u> , (1954)	femininity
	Little, (1959)	
VIII	Meer and Singer, (1950)	
	Rosen, (1951)	
	Hirschstein and Rabin, (1953) parental card	
	Davis and Bonier, (1960)	queen
	Brown, (1953)	animal impulses, hostile impulses
	Davis and Bonier, 1960	human internal organ
	Rosen, (1951)	
	Baughman, (1954)	anatomy symbol
IX	Phillips and Smith, (1953)	destructive impulses, and a concern with one's own integrity
	Brown, (1953)	negative affective stimuli, overflow of emotion
	Davis and Bonier, (1960)	emotional insecurity
	Ranzoni, <u>et al.</u> , (1950)	emotional aspects of personality
	Sines, (1960)	femininity



of the present investigation to test the hypothesized relationship between various Rorschach cards and their predicted meanings.

Studies with the Semantic Differential:

Baughman (1958) has stated that Rorschach symbolism has been predominantly theoretical rather than empirical because of the lack of an adequate method to study the topic. This was stated prior to several controlled studies recently done on the Rorschach inkblots with the semantic differential. These recent studies have not been concerned with the traditional request for responses. Some (Rabin, 1959; Zax and Loisselle, 1960) have been solely concerned with the semantic meaning of the stimulus properties of the standard inkblots, while others (Davis and Bonier, 1960; Little, 1959; Sines, 1960) have been concerned with relating verbal concepts to the Rorschach cards. All these studies used the semantic differential as their instrument to measure the meaning. The semantic differential will be described more fully later.

Rabin (1959), using twenty bipolar scales, showed that the Rorschach inkblots could be described by patterns of unique distributions on both sides of the bipolar scales. There was some overlap of meaning patterns obtained; however, no two inkblots had identical meanings. He found that Cards IV and VII had almost perfectly opposite meanings. Card VI had an indefinite meaning since it could only be described by one scale.

Zax and Loisselle (1960) did a study similar to Rabin's, using some of the same scales. They found similar results with regard to the Rorschach inkblots. Although Card VI was significantly described by more than one scale in this study, it was still the least meaningful of the series. In regard to possible overlap in meanings of the cards, Zax and Loisselle (1960) indicate that the only similarity appeared to be between Cards I and IV. Using a different method, Taniguchi et al., (1958) reported

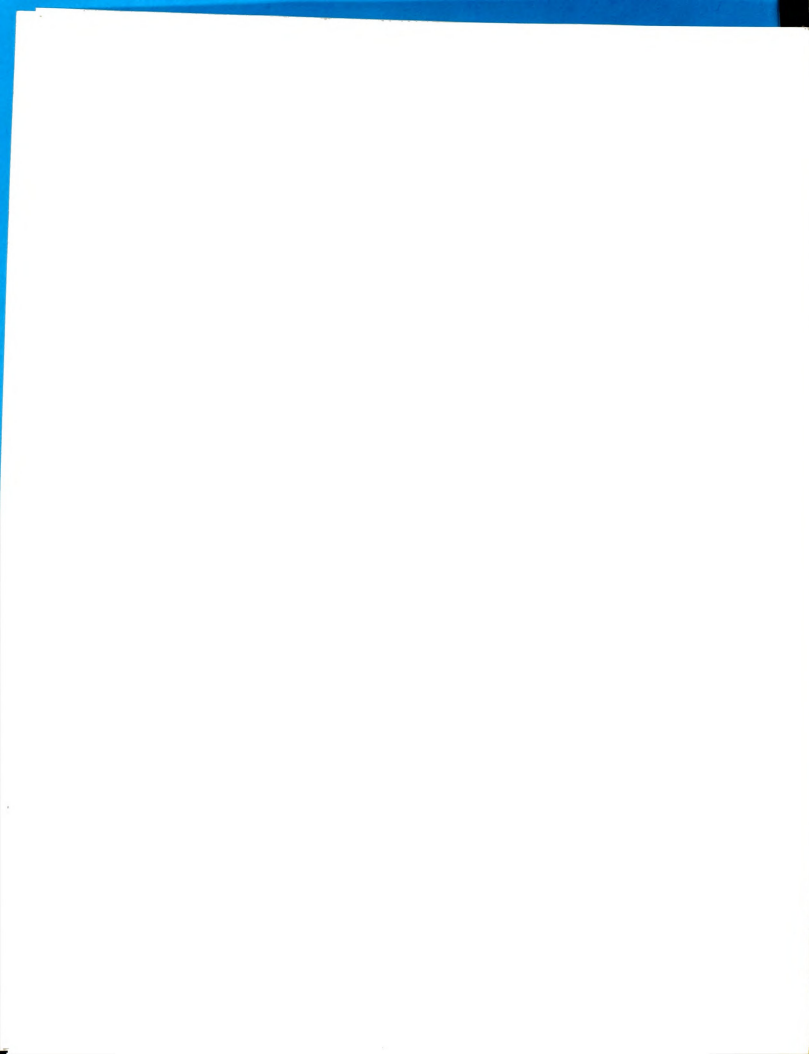


similarity only between Cards I and IV as well. It would appear that the Rorschach cards have distinct meanings with the possible exception of Cards I and IV.

In developing the implications of his study, Rabin (1959) stated that one possibility for future research would be to relate ". . . the results with the several symbolic cards to meanings obtained with verbal stimuli (e.g., father, mother, etc.) which allegedly they represent. . . ." (p. 372). Concurrently with Rabin's investigation, Little (1959) studied the stimulus properties of the Rorschach inkblots and attempted to find similarities between them and some verbal concepts. He found some basis for considering Card VII as a feminine and/or mother card. Little held that it was feasible to relate the Rorschach inkblots to concepts, although a previous study failed to produce significant results (Osgood, et al., 1957). Little used an analysis of variance design with the D-score as the data, rather than an agreement analysis as used in the previous study cited. Thus the difference in results may be due to the method of analysis of the data.

In a pilot study with thirty subjects, Davis and Bonier (1960) found that it was possible to relate the meaning of individual Rorschach cards to certain hypothesized verbal concepts with the semantic differential. They found similar meanings between Card I and "a punishing father" and also to "witch," Card II to "emotional security," Card III to "rivalry," Card IV to "a punishing father" and also to "monster," Card VI to "a memory of a toy of childhood," Card VII to "queen," Card VIII to "human internal organs," and a tendency for Card IX to be similar to "emotional insecurity."

The verbal concepts mentioned above came from varied sources. A punishing father was suggested as the meaning of Card IV, since they believed this card reflected a punitive father in particular rather than the general concept father for normals. Emotional security, rivalry, human



internal organs, and emotional insecurity were taken from Rosen (1951). His study required the Ss only to point to the card that was symbolic of these concepts. The fact that Davis and Bonier (1960) found similar results to those of Rosen for these concepts indicates that the semantic differential can be used validly to test the similarity of meaning between Rorschach inkblots and verbal concepts.

Monster, queen, and witch were selected on the basis that they are psychoanalytic symbols (when appearing in dreams) for a punishing father, a pleasing mother, and a punishing mother respectively. The fact that they were significantly related to Cards IV, VII, and I respectively raised the possibility that the Rorschach cards have meanings similar to some dream images. Thus it appeared that the semantic differential also could be used to test the theoretical assumption that the Rorschach inkblots are similar in meaning to dream images. If they are, they should have meanings similar to the verbal concepts which are associated with the dream images.

Summary:

It has been stated that principles of perception indicate that responding to the Rorschach is influenced by the stimulus properties of the inkblots. If the Rorschach inkblots have symbolic meanings, then it would follow that the stimulus properties of the inkblots would have a similarity in meaning to the referents they symbolized. A review of the symbolic meanings attributed to the Rorschach cards was made in Table 1. Recent studies of the stimulus properties of the Rorschach by means of the semantic differential were reviewed. Also reviewed were studies which showed that the relationship between Rorschach inkblots and verbal concepts could be effectively studied using the semantic differential. Davis and Bonier's (1960) pilot study showed that some of the verbal concepts related were those associated with dream images.

PRESENT PROBLEM

The present study was an attempt to validate some symbolic meanings hypothesized for the Rorschach inkblots. Cards V and X were not used since there is no clear symbolic meaning hypothesized to them in the literature. The concepts are on two levels. The manifest level concepts were taken from psychoanalytic theory of symbolism. They are analogous to the manifest content of a dream. The latent level concepts were taken from clinical hypotheses regarding the symbolic meaning of the Rorschach inkblots. These latent concepts are assumed to be motivating the subject while he is attempting to give a response; although they are not given as a response themselves. If the Rorschach cards have symbolic meanings, they should have meanings similar to these hypothesized latent concepts. Furthermore, if the Rorschach inkblots are similar to dream images, then they should have meanings similar to the manifest level concepts. The manifest level concepts are verbal concepts for the dream image which in psychoanalytic theory would be symbolic of the hypothesized latent meanings on the Rorschach. Thus if Card VII has the latent meaning of a pleasing mother, then it should also be related to the concept queen (see Table 2).

The manifest level concepts were selected from psychoanalytic theory as follows: "witch" for "a punishing mother" (Hadfield, 1954), "pond" and "flood" for the concepts "a happy childhood" and "an unhappy childhood" respectively, (Gutheil, 1951), "triangle" for "rivalry" (Daly, 1921; Jeffreys, 1936; Klein, 1932; Wegrocki, 1938), "monster" for "a punishing father" (Freud, 1938; Klopfer, *et al.*, 1954), "snake" for "a male sex organ" (Fenichel, 1945; Freud, 1938, 1960; Jones, 1950; Kubie, 1953), "queen" for "a pleasing mother" (Freud, 1938, 1960), and "skeletons" for "a murderous impulse" (Gutheil, 1951).



Table 2. List of Concepts Which are Predicted to the Rorschach Cards.

Rorschach Card	Concepts	
	Manifest	Latent
I	witch	a punishing mother
II	pond	a happy childhood
III	triangle	rivalry
IV	monster	a punishing father
VI	snake	a male sex organ
VII	queen	a pleasing mother
VIII	skeleton	a murderous impulse
IV	flood	an unhappy childhood

Note: Subjects also rated control concepts. These were: mother, father, punitiveness, impulse, childhood, cavern, female sex organ, and king.



Since most of the latent level concepts contain an adjective and a noun, control concepts were added to reduce error. The concepts mother, father, punitiveness, impulse, and childhood were added as a control for the latent concepts that contain these meanings. Cavern and female sex organ were selected as the manifest and latent controls for snake and male sex organ, respectively. King was a control for queen to insure that it is the feminine rather than the royal aspect only that is involved in Card VII. These control concepts were added to the matrices when necessary. The Rorschach inkblot had to be more similar in meaning to the predicted concept than the control concept as well.

Three graduate students in clinical psychology were asked to use their knowledge of psychoanalytic theory in matching the manifest level concepts to those of the latent level. The latent level concepts had been randomized for their order of presentation. Kendall's coefficient of concordance was computed which resulted in a W equal to .88 which is significant at the .01 level. Thus it appears that the judges were able to agree on their matching of the two levels of concepts. Their matching was consistent with that of the present investigator as reported in Table 2.



HYPOTHESES

- I. It is hypothesized that each Rorschach card will be more similar in meaning to its hypothesized manifest concept than to any other manifest concept.
- II. It is hypothesized that each Rorschach card will be more similar in meaning to its hypothesized latent level concept than to any other latent level concept.



METHOD

Semantic Differential:

The semantic differential, devised by Osgood et al. (1957), requires the subject to mark off on a seven point scale his response to a stimulus. The scale is a bipolar one with opposite meanings at each end; e.g., "good---"bad". A score of one, two, or three indicates that the stimulus has a meaning in the direction of the left side of the pole; while a score of five, six or seven shows a meaning toward the right side of the pole. Four is the neutral point, i.e., equidistant from either meaning, and therefore represents no specific meaning. An illustration follows:

1 2 3 4 5 6 7
good: _____ : _____ : _____ : _____ : _____ : _____ : _____ : bad

It has been demonstrated that the semantic differential can be used to describe pictorial stimuli (McMurray, 1958) as well as verbal concepts. In the present study, the stimuli are Rorschach inkblots and verbal concepts. Twenty bipolar scales, which have frequently been used in recent research (Davis and Bonier, 1960; Rabin, 1959; Zax and Loisselle, 1960), constituted the semantic differential in this study (see Appendix I).

The reliability and validity of the semantic differential is reported by Osgood et al. (1957). In addition, the similarity between results obtained by Rabin (1959) and Zax and Loisselle (1960) suggests that the semantic differential is reliable when used with the Rorschach. Furthermore, the similar results obtained by Davis and Bonier (1960) with the semantic differential to those of Rosen (1951) who employed other methods suggest that this instrument can be used validly.

Subjects:

The subjects were 90 undergraduate students, 45 males and 45 females, drawn from two introductory psychology courses and one child psychology course at Michigan State University. The mean ages were 19.9 and 19.7 and the standard deviations were 2.21 and 1.63 for the males and females respectively.

Procedure:

The subjects were divided into three groups each composed of 30 subjects, 15 males and 15 females. Each subject was given a booklet of semantic differentials. The standard instructions used by Osgood et al. (1957) were attached as a cover sheet to the booklet (see Appendix II).

In order to exercise some control over serial effect, the presentation of stimuli was balanced so that one group received the Rorschach inkblots first, another group received the manifest level concepts first, and the third group received the latent level concepts first. Table 3 shows the order of presentation.

The stimuli, Rorschach inkblots and verbal concepts, were projected onto a screen by an opaque projector. The verbal concepts were printed with black ink on cardboards which were the same size as Rorschach cards. Each stimulus was projected for a maximum of three minutes which is apparently sufficient time to complete a semantic differential containing 20 scales (Rabin, 1959). In instances where all the subjects finished rating the stimulus prior to three minutes, the exposure of the stimulus was terminated. In no instance was the exposure less than two minutes.

Statistical Analysis:

Osgood et al. (1957) described a D statistic for use with the semantic differential in order to measure the similarity in meanings between two



Table 3. Order of Presentation of Rorschach Cards (R), Manifest Level (M), Latent Level (L) Concepts, and Control Concepts (C).

Group	Order of Presentation			
	First	Second	Third	Fourth
I	R	M	L	C
II	M	L	C	R
III	L	C	R	M



different stimuli. The D statistic is based on the difference in ratings on the same scale for the two stimuli. A low D score indicates a high similarity in meaning, while a high D score indicates low similarity.

For example, if on the good-bad scale, a subject rated Card I as six (toward bad) and a witch as two (toward good), the difference would be four. Similar comparisons were made between Card I and witch on the ratings for the other 19 bipolar scales. The D score between two stimuli is obtained by squaring the differences for each scale, summing over all 20 bipolar scales, and then taking the square root.

For each subject, a D score was computed between each Rorschach card and each of the manifest and latent level concepts. For example, for subject A, D scores were computed between Rorschach Card I and each of the eight concepts of the manifest level; between Rorschach Card II and the same eight verbal concepts, etc. Similarly the D score was computed between the Rorschach cards and the latent level concepts. Likewise, D scores were computed between the Rorschach cards and the control concepts.

A matrix was formed consisting of all the D scores between a particular Rorschach card and the concepts of one level (e.g., manifest) for all subjects. Control concepts were added to the matrix when necessary (see Table 4). The entry in column one, row one, is the D score between Rorschach Card I and witch for subject A. A row represents the D scores between Rorschach Card I and each of the verbal concepts of that level for one subject. The columns represent the D scores between Rorschach Card I and each concept for all subjects. Thus one column represents the D scores between a Rorschach card and its predicted concept, while the other columns represent the D scores between the Rorschach card and the other concepts. The column of D scores for the predicted relationship was compared to the other columns by means of a sign test (Siegel, 1956). With regard to Table 4, the first column was compared to all the others, since witch is predicted to Card I.



Similar matrices were arranged for the other Rorschach cards and the verbal concepts of both levels. In each case a sign test was computed between the column of D scores of a specific Rorschach card and its predicted verbal concept, and all other columns of D scores representing the relationship of the specific Rorschach card to the other verbal concepts of one level. If the Rorschach card is more similar to the predicted concept, the column of D scores representing this relationship should be significantly smaller than the column of D scores comparing the Rorschach card and other verbal concepts. In terms of the sign test, there should be a sufficient number of minus signs (predicted relationship smaller) to reject the Null Hypothesis. In other words a sufficient percentage of subjects will have to give a smaller D score for the predicted relationship than for the Rorschach card and any other concept of that level.

The level of significance of the differences between the predicted relationship's column of D scores and any other column of D scores was .05. The hypotheses permit one-tailed tests of significance since the similarity of meaning is predicted. It is only the smaller D score which would indicate similarity of meaning. In order for a hypothesis regarding a card and a predicted concept to be supported it is necessary that the card have a significantly smaller D score with regard to the predicted concept than any other concept on that level (including the appropriate controls). Thus a minimum of seven sign tests and a maximum of nine (two controls were the most in any matrix) had to be significant in order to have the hypothesis supported.

In the event that this stringent test of the hypotheses fails, the results may suggest some form of pattern. This would be so if the Rorschach card is significantly more similar to the predicted concept than only some of the other concepts. It would be possible to state that the Rorschach card is more similar to the predicted concept than some of the other concepts, but not of all. This would suggest some similarity of meaning among the

Rorschach card, the predicted concept, and the remaining concepts. Since the number and nature of the concepts remaining may vary for the different cards, the term "pattern" is used. A pattern is a group of concepts which share similar meaning to the predicted concept in relation to a specific Rorschach card.

Additional Treatment of the Data:

Further exploration of the data was undertaken via additional analyses. For one part this involved the separation of the data for the sexes. Then the two hypotheses were tested, as stated before, for each sex separately.

Another additional analysis involved the arranging of new matrices of D scores which would permit testing empirically the assumed similarity in meaning between the manifest and latent level concepts. As stated previously, this relationship had been assumed on the basis of psycho-analytic theory and by the agreement of three judges. The analysis was similar to those for the hypotheses, except that the predicted relationship was between a specific manifest and latent concept.



RESULTS

Data Relevant to Hypothesis I (Rorschach and Manifest Level Concepts):

Table 5 reports the percentage of subjects giving greater similarity in meaning between a specific Rorschach card and its predicted manifest concept than its similarity to any other concept on the manifest level. Where there is no entry in the table, it indicates that the predicted relationship is compared with itself. Therefore, the first entry reading across is 79 percent which shows that this percentage of subjects indicated greater similarity between Card I and witch than between Card I and pond. The differences in percentages is significant at .001 level. The next entry, reading across, shows that Card I is rated as more similar to witch than to triangle by only 51 percent of the subjects. Therefore, looking across, it is apparent that Card I is significantly more similar to witch than to pond and to queen, but not significantly more similar to witch than to the other concepts. Similar comparisons were made for the other cards. Each row represents the results of comparing the predicted relationship for one card to the other concepts. The rows for Card VI and Card VII contain an extra concept which served as a control.

It is apparent from the table that the hypothesis is definitely supported for Cards III and IV. It is also clear that the hypothesis is not supported for Card IX. The obtained results for the other cards (I, II, VI, VII, and VIII) also do not support the original hypothesis which required the predicted relationship to be smaller than at least seven other concepts. However, the obtained results for these cards suggest that the predicted relationship is smaller than the relationship of that Rorschach card to some of the other manifest level concepts. Although these cards do not have stimulus properties unique to their predicted concepts, the obtained

Table 5. Percentage of Subjects Who Indicate Greater Similarity Between a Particular Card and the Predicted Concept Than Between That Card and Each of the Remaining Manifest Level Concepts.

Rorschach Card and the Predicted Concept	Other Manifest Concept Rorschach Card Was Compared To									
	Witch	Pond	Triangle	Monster	Snake	Queen	Skeleton	Flood	Cavern	King
Card I and witch		79***	51	50	48	76***	61	46		
Card II and pond	79***		32	82***	62*	49	62*	78***		
Card III and triangle	80***	68***		83***	71***	64**	81***	83***		
Card IV and monster	80***	91***	78***		74***	88***	80***	69***		
Card VI and snake	79***	62*	34	84***	62*		52	77***	45	
Card VII and queen	83***	52	48	90***	71***		60*	91***		79***
Card VIII and skeleton	74***	48	20	81***	51	52		78***		
Card IX and flood	49	31	18	58	27	32	30			

Note: * .05 level
 ** .01 level
 *** .001 level



results indicate some information about their stimulus properties which may be understood by inspection of the patterns of concepts.

Table 6 summarizes the data of Table 5 and presents the concepts which could not be excluded from the meaning of a Rorschach card. For example, Card I is not significantly more similar to witch than to triangle, monster, snake, skeleton, and flood. The stimulus properties of Card II is not significantly more similar to its predicted concept pond than to triangle and queen. Card I differs from Card II in both the number and meaning of the concepts which could not be excluded. The term, pattern, is used to describe this difference in the number and meaning of the concepts. Since Rorschach Card I is not significantly more similar to its predicted concept than to these other concepts, it would suggest some similarity in meaning among the Rorschach card, the predicted concept, and those concepts which were not excluded.

Inspection of Table 6 reveals that the patterns are only identical for Cards II and VII. It would appear that Cards II and VII have similar meanings. While the other cards have some overlap in patterns, they are not identical for any of the other cards.

Data Relevant to Hypothesis II (Rorschach and Latent Level Concepts):

Table 7 reports results for the latent level concepts. Again each row of entries gives the percentage of subjects who had more similarity between a Rorschach card and its predicted latent concept than between that Rorschach card and any other latent concept. For example, reading across, Card I is significantly more similar to a punishing mother than to a happy childhood (89 percent), male sex organ (71 percent), a pleasing mother (98 percent); but not to the other concepts in the row. The controls are reported on the second page of the table. The other rows, one for each card, may be read in a similar fashion.



Table 6. List of Concepts Which the Predicted Relationship Was Not Smaller Than, i. e., Could Not Exclude (Manifest Level)

Rorschach Card	Predicted Concept	Concepts Which Could Not Be Excluded
I	witch	triangle, monster, snake, skeleton, flood
II	pond	triangle, queen
III	triangle	none
IV	monster	none
VI	snake	triangle, skeleton, cavern
VII	queen	pond, triangle
VIII	skeleton	pond, triangle, snake, queen
IX	flood	witch, pond, triangle, monster, snake, queen, skeleton



Table 7. Percentages of Subjects Who Indicate Greater Similarity Between a Particular Card and the Predicted Concept Than Between That Card and Each of the Remaining Latent Concepts.

Rorschach Card and Its Predicted Concept	Other Concept Rorschach Card Was Compared To						
	A Punish- ing Mother	A Happy Childhood	Rivalry	A Punish- ing Father	Male Sex Organ	A Pleasing Mother	A Murder- ous Impulse Childhood
Card I and a punishing mother		89***	52	47	71***	98***	43
							48
Card II and a happy childhood	53		47	56	46	44	80***
							68***
Card III and rivalry	63*	61		73***	59	58	86***
							80***
Card IV and a punishing father	60*	97***	51		74***	97***	51
							50
Card VI and male sex organ	42	72***	37	49		73***	68***
							56
Card VII and a pleasing mother	62*	66**	59	70***	57		80***
							73***
Card VIII and a murderous im- pulse	17	36	18	18	23	32	
							28
Card IX and an unhappy childhood	27	43	26	38	28	38	67*

* .05 level

** .01 level

*** .001 level



Table 7. (continued)

Rorschach Card and Its Predicted Relationship	Other Concept Rorschach Card Was Compared To					
	Mother	Childhood	Punitiveness	Father	Female Sex Organ	Impulse
Card I and a punishing mother	91***		43			
Card II and a happy childhood		38				
Card III and rivalry						
Card IV and a punishing father			60*	88***		29
Card VI and a male sex organ					61*	
Card VII and a pleasing mother	60*					
Card VIII and a murderous impulse						17
Card IX and an unhappy childhood		33				

* .05 level

** .01 level

*** .001 level



The hypothesis that each Rorschach card will be more similar in meaning to its predicted latent concept than to any other latent concept, is not supported for any of the cards. This is evident from Table 7 since in no row are all of the percentages large enough to be significant. Inspection of the rows for Cards III and VII reveals that the results are in the predicted direction for these two cards. This would suggest that these two Rorschach cards have the predicted meanings. The predicted relationship for Card VIII is not smaller than the relationship of that card to any other latent concept. Therefore, Card VIII could not be said, on the basis of the present study, to have the specific predicted meaning. For Card IX, the predicted concept is more similar to that card than only one other concept, an unhappy childhood. Since obtaining one significant sign test out of seven is an event attributable to chance, Card IX also could not be considered to have the predicted meaning.

For the other cards, the obtained results indicate that each of these Rorschach cards has stimulus properties which are more similar to the predicted concept than to some of the other latent level concepts. Therefore, it is analogous to Table 6 except that it reports the latent level. Inspection of Table 8 reveals that no two Rorschach cards have identical patterns. Some of the patterns such as for Cards I and VI appear to have concepts which suggest a negative and potent connotations. Card II tends to have a varied meaning since it is similar to concepts which suggest both negative and positive evaluation. Cards III and VII, which had identical patterns for the manifest level concepts, do not show this similarity in meaning with regard to the latent level concepts.

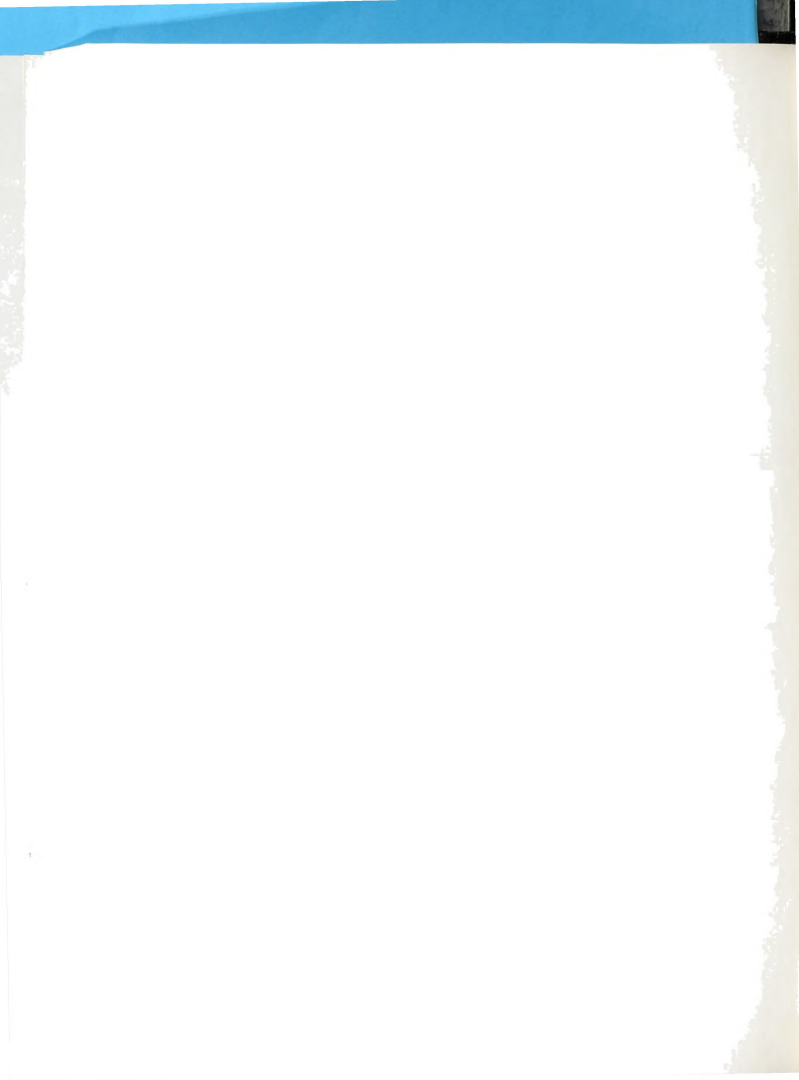
Two Additional Results:

Analysis of the hypotheses according to sex: Tables 9 and 10 report the percentages of males and females giving higher similarity between the Rorschach card and its predicted concept than between that



Table 8. List of Concepts Which the Predicted Relationship Was Not Smaller Than, i. e., Could Not Exclude (Latent Level).

Rorschach Card	Predicted Concept	Concept Which Could Not Be Excluded
I	a punishing mother	rivalry, a punishing father, a murderous impulse, an unhappy childhood, punitiveness
II	a happy childhood	a punishing mother, rivalry, a punishing father, male sex organ, a pleasing mother, childhood, punitiveness
III	rivalry	a happy childhood, male sex organ, a pleasing mother
IV	a punishing father	rivalry, a murderous impulse, an unhappy childhood
VI	male sex organ	a punishing mother, rivalry, a punishing father, an unhappy childhood
VII	a pleasing mother	rivalry, male sex organ
VIII	a murderous impulse	a punishing mother, a happy childhood, rivalry, a punishing father, male sex organ, a pleasing mother, an unhappy childhood, impulse
IX	an unhappy childhood	a punishing mother, a happy childhood, rivalry, a punishing father, male sex organ, a pleasing mother, childhood



Other Concept Rorschach Card Related To	Card I and Witch	Card II and Pond	Card III and Triangle	Card IV and Monster	Card VI and Snake	Card VII and Queen	Card VIII and Skeleton	Card IX and Flood
Witch								
M		73***	80***	78***	75***	87***	80***	47
F		84***	80***	82***	82***	80***	69**	52
Pond								
M	73***		70**	93***	58	42	49	29
F	84***		66*	87***	67*	62	47	33
Triangle								
M	51	40		82***	40	47	18	13
F	51	24		73***	29	49	22	22
Monster								
M	51	78***	82***		81***	91***	84***	58
F	50	87***	82***		87***	89***	98***	60
Snake								
M	50	51	69**	75***		76***	51	16
F	47	74***	73***	74***		67*	51	33
Queen								
M	69**	52	69**	91***	58		49	20
F	82***	47	60	84***	61		56	44
Skeleton								
M	56	56	84***	80***	49	58		20
F	67**	69**	78***	80***	56	62		40
Flood								
M	60	71**	84***	73***	76***	93***	82***	
F	36	84***	82***	64*	78***	89***	73***	
Cavern								
M					42			
F					49			
King								
M						73**		
F						83***		

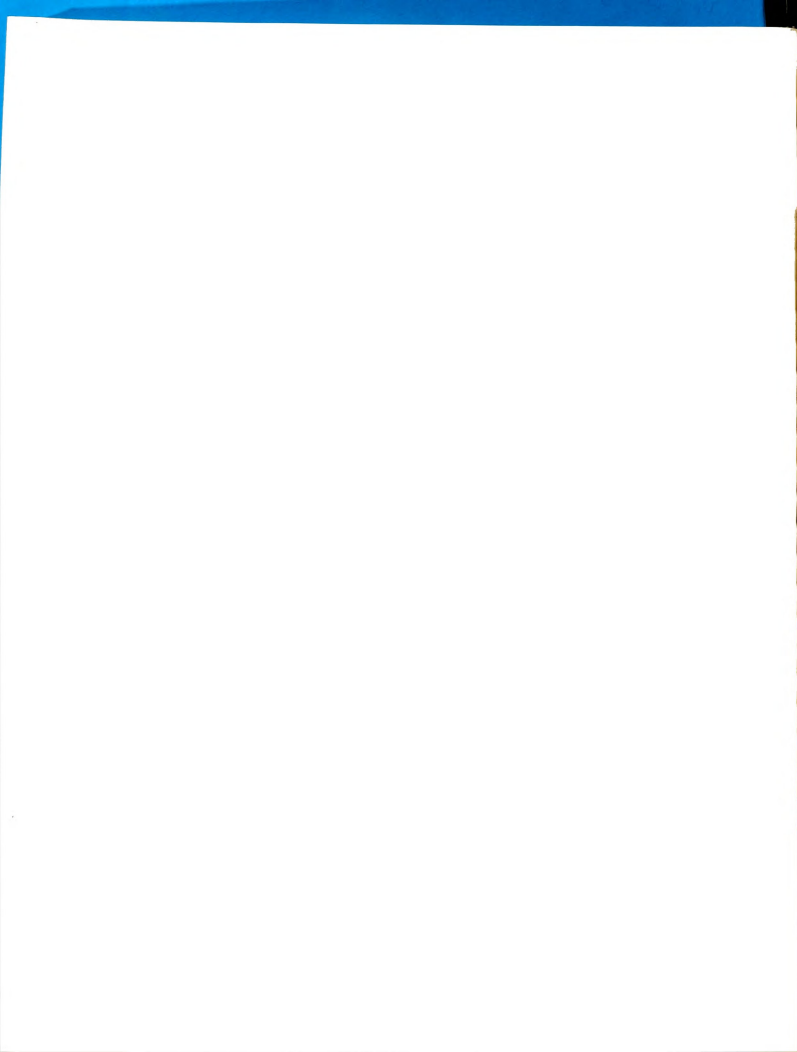


Table 10. Percentages of Males and Females Who Indicate Greater Similarity Between a Particular Card and Its Predicted Concept Than Between That Card and Each of the Remaining Concepts (Latent Level).

		Predicted Relationships					
Other Concept	Card I and	Card II and	Card III	Card IV and	Card VI	Card VII and	Card VIII and
Rorschach Card	a Punishing	a Happy	and	a Punishing	and Male	a Pleasing	a Murderous
Related To	Mother	Childhood	Rivalry	Father	Sex Organ	Mother	Impulse
A punishing							
mother							
M		46	58	60	33	62	7
F		59	66*	60	50	62	24
A happy							
childhood							
M	87***		58	93***	67*	60	27
F	91***		64*	100***	45	73**	44
Rivalry							
M	70**	47		64*	36	53	18
F	36	48		39	39	61	20
A punishing							
father							
M	50	49	80***		50	71**	14
F	44	38	67**		49	68*	22
Mother							
M	87***						
F	96***						
Punitiveness							
M	43			57			
F	35			60			
Childhood							
M		34					
F		41					
Father							
M				88***			
F				93***			

Note: * .05 level; ** .01 level; *** .001 level

continued

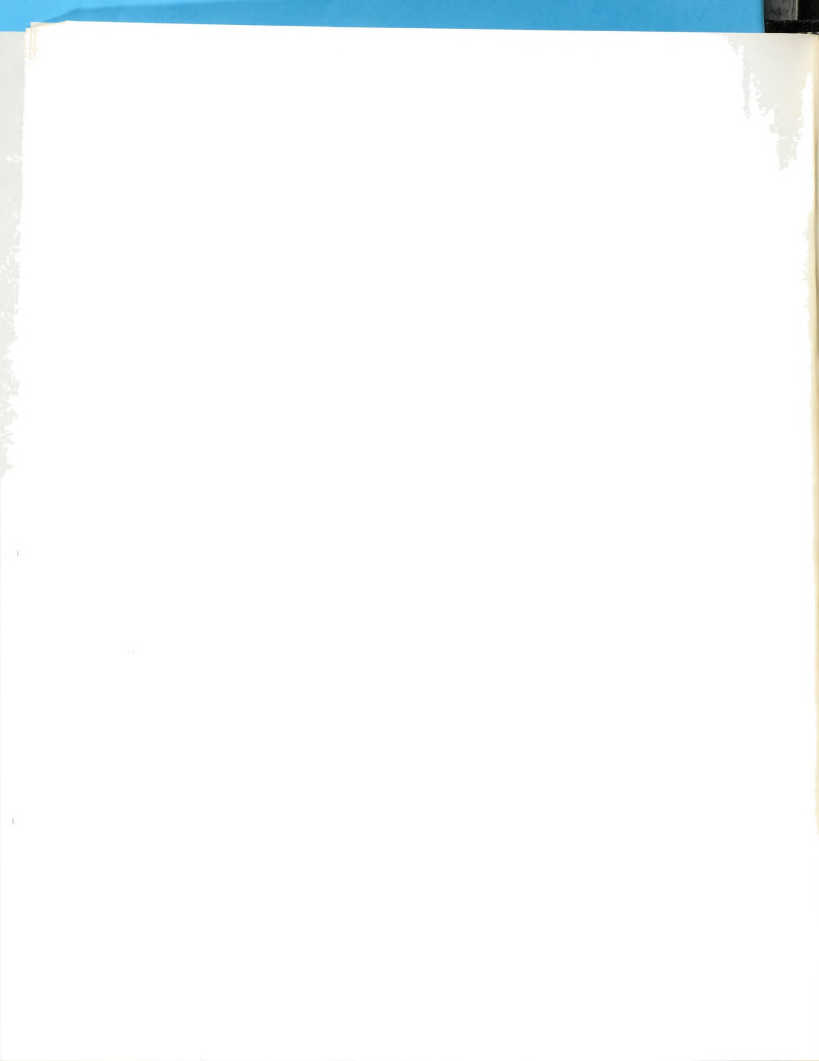
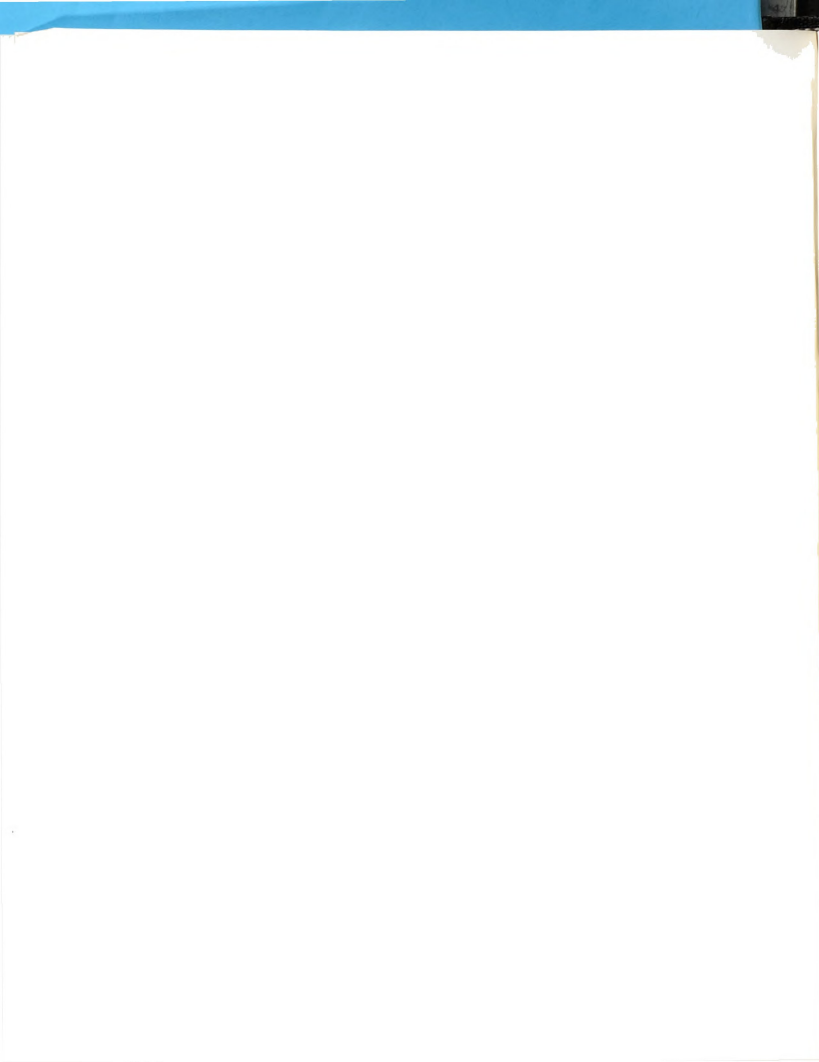


Table 10 (continued)

Other Concept Rorschach Card Related To	Card I and a Punishing Mother	Card II and a Happy Childhood	Card III and Rivalry	Card IV and a Punishing Father	Card VI Sex Organ and Male	Card VII and a Pleasing Mother	Card VIII and a Murderous Impulse	Card IX and an Unhappy Childhood
Male sex								
organ								
M	78***	41	62	78***		57	22	33
F	64*	51	56	71**		58	24	23
A pleasing								
mother								
M	84***	45	58	98***	69**		24	31
F	91***	44	58	98***	78***		40	44
A murderous								
impulse								
M	40	78***	89***	60	57**	80***		75***
F	44	82***	84***	43	69**	80***		60
An unhappy								
childhood								
M	45	62	78***	62	44	71**	20	
F	50	73***	82***	49	67**	75***	36	
Female sex								
organ								
M					64*			
F					58			
Mother								
M						53		
F						67*		
Impulse								
M							11	
F							22	
Childhood								
M								24
F								12



Rorschach card and any other manifest and latent concept. These two tables follow the pattern of Tables 5 and 7 except that they have been shifted in order to make room for double entries. The shift in arrangement of headings results in the columns rather than the rows being read. There is no entry in the first space of column 1 since this would be a comparison of the predicted relationship (Card I and witch) with itself. The first entry in column 1 is 73 percent for the males and 84 percent for the females. This percentage of males and females, respectively, related Card I as significantly more similar to witch than to pond. Going down the column, it is noticeable that Card I is significantly more similar to witch than to queen for the males, too. For the females, Card I is significantly more similar to witch than to pond, queen and skeleton. Thus it is observable that for Card I and its predicted concept the females excluded one concept in addition to the two which were excluded by both males and females.

With regard to Hypothesis I, inspection of Table 9 reveals that the males give similar results as reported for the total group. Thus, Hypothesis I is supported for the males on Cards III and IV only. For the females the Hypothesis is supported only for Card IV since the other Rorschach cards were not more similar to their predicted concept than to any other manifest level concept. On Card III the females have results which are in the predicted direction, but they fail to support the hypothesis since they cannot exclude the concept triangle. Card IX has the same results for each sex as for the total group, i. e., none of the concepts were excluded by the predicted relationship.

For the manifest level, the sexes had similar patterns on Cards IV, VII, VIII, and IX (see Table 9). As stated above, both sexes rated Card IV as more similar to monster than to any other manifest level concept. For Card VII, both sexes rate it as more similar to queen than to witch, monster, snake, flood, and queen; but not to the other concepts.

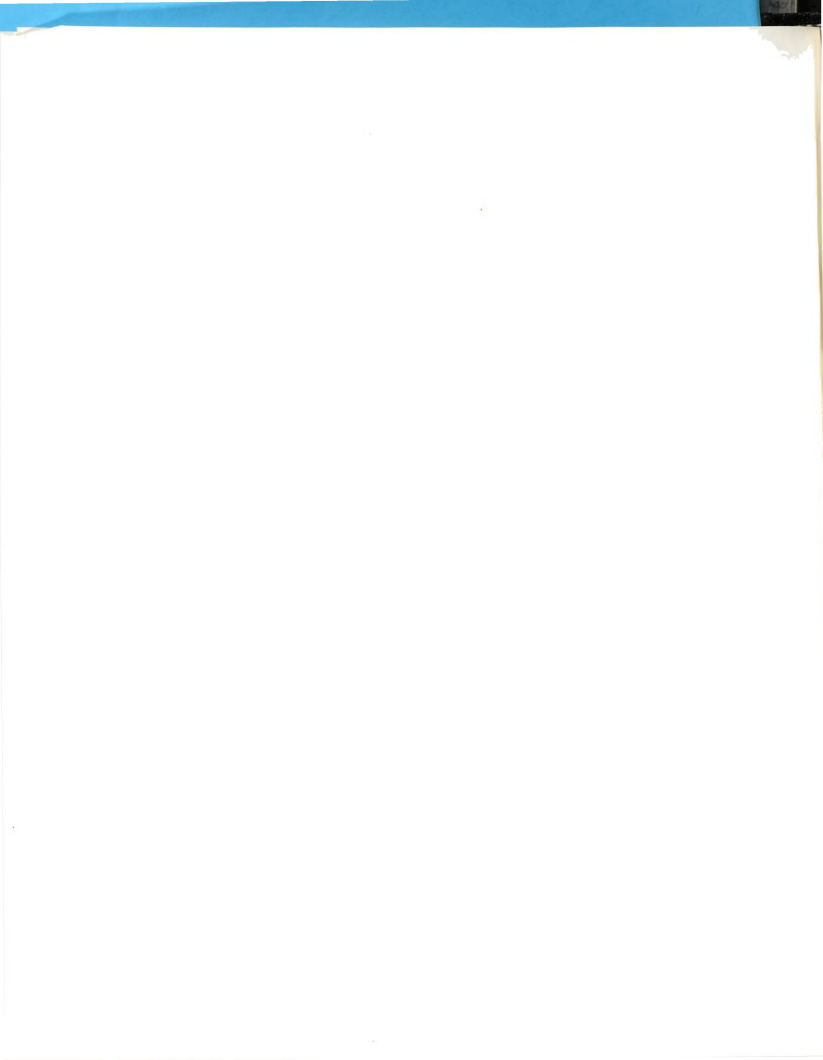


On Card VIII, they rate it as more similar to skeleton than to witch, monster, and flood; but not to the other manifest level concepts. On Card IX, both sexes are similar in their failure to relate the card as more similar to its predicted concept than to any other one.

The males and females differ on Cards I, II, III, and VI with regard to the manifest level concepts. Looking at Table 9, the first column shows that the females relate it as closer to witch than to skeleton although the males do not. Column 2 shows that the females rate Card II as more similar to pond than to snake although the males do not. As mentioned before, Card III differs for the females in that they are not able to support Hypothesis I while the males do so for this card. On Card VI, the females rate it as more similar to snake than pond although the males do not do so.

The males and females fail to support Hypothesis II on any card. Thus they were not able to relate any of the Rorschach cards as significantly more similar to their predicted latent concept than to the other latent concepts. For the males, the results were in the predicted direction on Cards III, IV, and VII. For the females they were in the predicted direction for Cards III and VII. These results suggest some tendency for the hypotheses to be supported for these cards. It would also suggest that Card IV has some tendency to be symbolic of its predicted latent concept for the males only.

On the latent level, the males and females appear to show sex differences in how they rated the cards to the concepts. This difference appears only in regard to the patterns formed and not in regard to the hypotheses. The males and females have a similar pattern on the latent level only on Card VIII where they both fail to rate the card as more similar to the predicted one than to any other concept. On all the other cards, the number and meaning of the concepts which the predicted relationship could not exclude was different. For example, looking down the first column of Table 10, shows that the males and females differ in that the



males relate Card I as more similar to a punishing mother than to rivalry. On Card II the females rate it more to a happy childhood than to an unhappy childhood while the males do not. The females relate Card III more to rivalry than to a punishing mother and to a happy childhood, but the males do not. The males relate Card IV more to a punishing father than to rivalry, but the females do not make this distinction. On Card VI the males relate it as more similar to male sex organ than to female sex organ, but the females do not do this. On the other hand, the females do not consider an unhappy childhood as being similar in meaning to Card VI while the males do. For Card VII the females differ from the males in that they relate it more to a pleasing mother than to mother or to a happy childhood while the males do not make this distinction. On Card IX the only difference is that the males relate it more to an unhappy childhood than to a murderous impulse.

Using the Fisher Exact Probability Test to determine whether the apparent difference in patterns for the sexes on the two levels of concepts is significant results in a .13 level of significance. Therefore, the data slightly suggests such a difference.

Relationship between manifest and latent level concepts: An additional analysis had been made to test empirically whether the manifest level concept was more similar in meaning to its assumed latent level concept. These results are reported in Table 11. Each column of this table reports the percentage of subjects giving a higher similarity between a manifest concept and its assumed latent concept than between that manifest concept and any other latent concept. Thus, this table reports an empirical test of the assumed relationship between the two levels of concepts.

Inspection of Table 11 shows that queen is more similar to its assumed latent concept, a pleasing mother, than all the other latent concepts. Thus the assumption is supported with regard to this relationship.



Table 11. Percentages of Subjects Who Indicate Greater Similarity Between a Particular Manifest Concept and Its Assumed Latent Concept than Between that Manifest Concept and the Remaining Latent Level Concepts.

Other Latent Concepts	Manifest Concept and Its Assumed Latent Concept						
	Witch to a Punishing Mother	Pond to a Happy Childhood	Triangle to Rivalry Father	Monster to a Punishing Father	Snake to a Male Sex Organ	Queen to a Pleasing Mother	Skeleton to a Murderous Impulse
A punishing mother		79***	49	62*	32	87***	7 50
A happy childhood	100***		79***	99***	82***	84***	47 97***
Rivalry	69***	69***		56	31	86***	21 59
A punishing father	77***	80***	67**		35	81***	19 64**
Male sex organ	92***	70***	44	82***		91***	24 89***
A pleasing mother	98***	28	72***	96***	75***		24 98***
A murderous impulse	32	97***	94***	21	49	96***	27
An unhappy childhood	30	93***	80***	40	29	97***	12

Note: * .05 level
 ** .01 level
 *** .001 level



Table 12. List of Latent Concepts Which the Assumed Relationship Between Each Manifest Concept and Its Assumed Latent Concept was Smaller Than, i. e., Could Not Exclude.

Manifest Concept	Assumed Latent Concept	Other Latent Concept Which Could Not Be Excluded
witch	a punishing mother	a murderous impulse an unhappy childhood
pond	a happy childhood	a pleasing mother
triangle	rivalry	a punishing mother male sex organ
monster	a punishing father	rivalry a murderous impulse an unhappy childhood
snake	male sex organ	a punishing mother rivalry a punishing father a murderous impulse an unhappy childhood
queen	a pleasing mother	none
skeleton	a murderous impulse	a punishing mother a happy childhood rivalry a punishing father male sex organ a pleasing mother a murderous impulse an unhappy childhood
flood	an unhappy childhood	a punishing mother rivalry a murderous impulse

The results for the other manifest concepts are not so clear-cut. Reading down the columns, it is apparent that witch is more similar to a punishing mother than the other latent concepts with the exception of a murderous impulse and an unhappy childhood. The second column indicates that pond is more similar to a happy childhood with the exception of a pleasing mother. Triangle is more similar to rivalry with the exception of a punishing mother and male sex organ. Monster is more similar to a punishing father than the other latent concepts with the exception of rivalry, a murderous impulse, and an unhappy childhood. Snake is only more similar to male sex organ than a happy childhood and a pleasing mother, but not of the majority of the latent concepts. The most clear-cut failure in the empirical test of the manifest to the latent concepts is the result that skeleton is not more similar to a murderous impulse than to any of the other latent concepts. With regard to the concept, flood; it is more similar to an unhappy childhood than any other latent concept with the exception of a punishing mother, rivalry, and a murderous impulse.

Table 12 summarizes the data of Table 11, just reviewed, and presents the latent concepts which are as similar in meaning to a specific manifest concept as is the assumed latent concept.

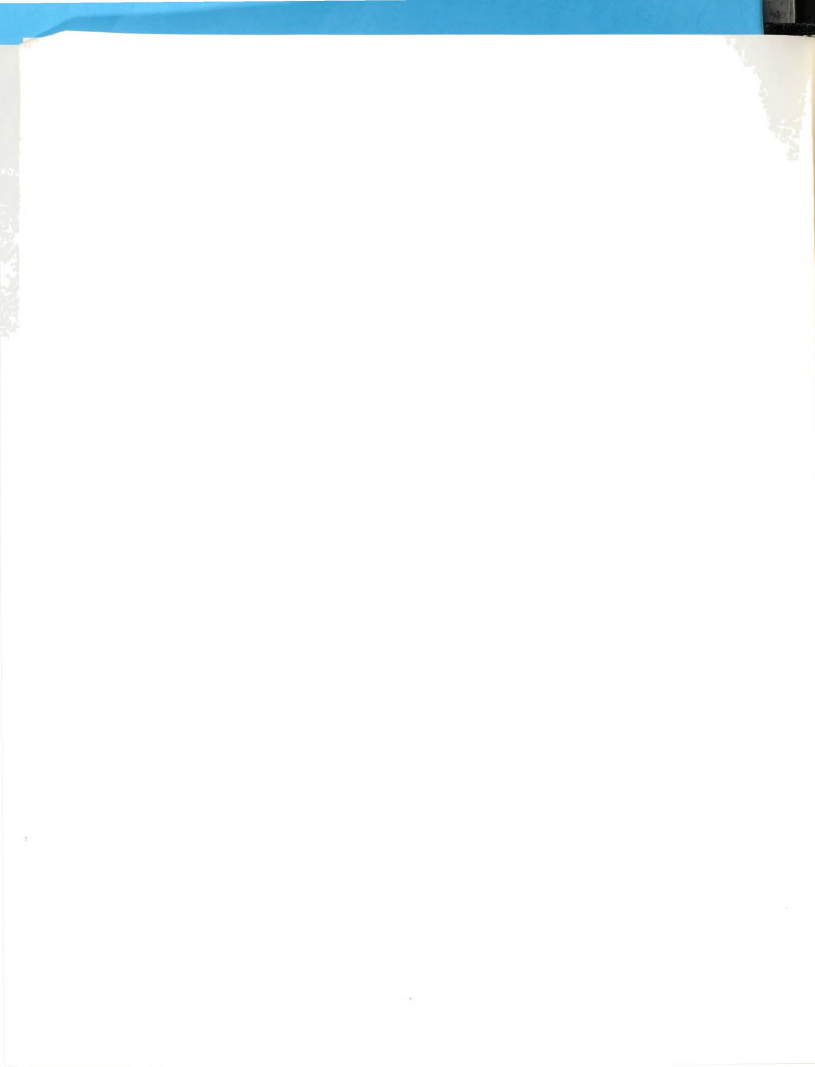
DISCUSSION

Hypothesis I (Rorschach Card and Manifest Level Concept):

The first general hypothesis regarding the relationship between the meaning of the Rorschach visual stimuli and specific concepts on the manifest level was partially supported by our findings. Card III and IV are closest in meaning to triangle and monster respectively--the hypothesized manifest level concepts. However, such a clear-cut relationship between the remaining cards and their hypothesized concepts was not supported by the data.

It is apparent that this study failed to demonstrate a specific meaning from a group of manifest concepts for six of the Rorschach cards although it did demonstrate a specific meaning for two of the cards. Thus it can be stated that not all of the Rorschach cards have meanings similar to concepts representing dream images. The implication of this finding is to reinforce caution regarding psychoanalytic interpretations of the Rorschach inkblots. (Piotrowski, 1957). Despite the fact that "regression in service of the ego" and condensation may take place in responding to the Rorschach inkblots, it does not permit one to generalize directly from these processes in dreams to their functioning in the Rorschach inkblots. Thus one may question the tendency among some clinicians to treat the Rorschach inkblots (whole blot or part) as similar to dream images and therefore use dream interpretation or principles to interpret the response given to that card or area.

The failure to support the hypothesis on six of the eight cards may be attributed to several factors. One factor is the nature of the Rorschach inkblots which permit a wider range of individual difference to occur in the response to their stimulus properties. A second factor may be that



the manifest concepts do not reflect universal symbols, but are the symbols obtained in some dreams. "Some" is emphasized here because of the possibility of biased sampling when inferences are based upon clinical populations as is the case with psychoanalytic symbols. An attempt to lessen variation was made by using each subject as his own control. However, this would not lessen variation due to the probable fact that most dream images are not universal symbols.

Davis and Bonier (1960) found that subjects related Card I to witch and Card VII to queen more frequently than these concepts to the other Rorschach cards. Their null hypothesis was that there was no direct relationship between the meaning of specific Rorschach cards and specific concepts. The present study employed a more stringent test, by asking the question for each Rorschach card "Is the card more similar to its hypothesized concept than to any other concept of that level?" This more stringent test fails to support the hypothesis in relation to six of the eight cards, but does support it regarding two cards. The null hypothesis for Card I and Card VII was rejected in the pilot study, but not in the present study which used this more stringent test.

The hypothesis was supported for Cards III and IV. This would indicate that the stimulus properties of these two cards would be semantically similar to the image of a triangle and monster respectively in a dream. Card IV is a card which has had much theorizing regarding its symbolic meaning. The data here supports the hypotheses regarding them. Card III has not been as productive as the other cards for clinically perceived symbolic meanings, but the data here indicate its similarity to triangle.

Hypothesis II (Rorschach Card and Latent Level Concepts):

The second general hypothesis regarding the relationship between the meaning of the Rorschach visual stimuli and specific concepts on the

latent level was not supported by our findings. The obtained results were in the predicted direction for Cards III and VII and suggest some tendency for these cards to have the predicted symbolic meanings. The other cards show even less clear-cut results than these two. Therefore, the attempt to relate specific latent meanings to a specific Rorschach card has not been supported.

Previously published studies (Meer and Singer, 1950; Pascal, et al. 1950; Sandler and Ackner, 1951; Show, 1948) which have indicated specific latent meanings to a card have obtained their results by not controlling for other types of concepts. Thus the results obtained in these studies are characterized by begging the question, since they have not used proper controls. For example, the data in the present study indicate that Card VI is more similar to a male sex organ than a female sex organ. However, while the tendency to see Card VI as a male sex organ rather than a female one is significant, there are other concepts which are more close to Card VI in meaning. If this study had been limited to asking sex responses to Card VI, there would have been a significant result which would have supported the hypothesis that Card VI is symbolic of a male sex organ. It is a failure, in these studies, to test other concepts that may be producing the significant results. This above mentioned statement is consistent with Piotrowski's (1957) warning against considering Card VI a "sex card." However, it can be said that male sex organ and not female sex organ is one of the concepts similar to Card VI.

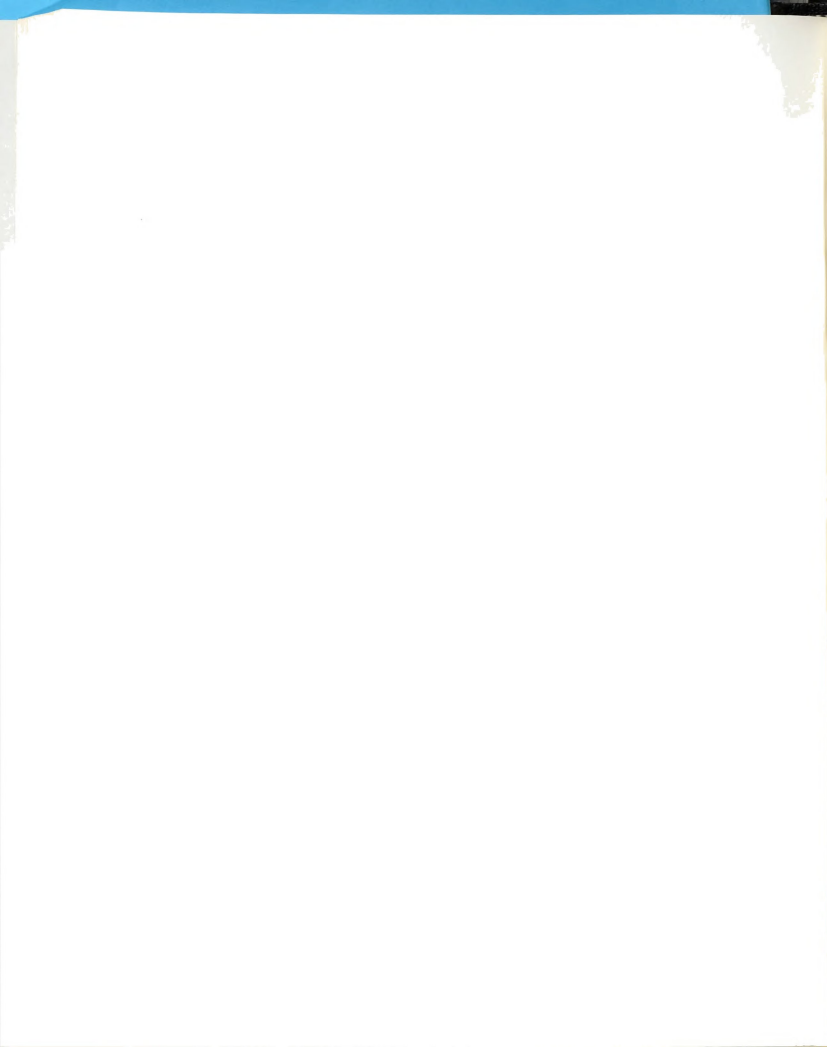
Another factor which distinguishes the present study from some of its predecessors (Meer and Singer, 1950; Pascal, et al., 1950; Shaw, 1948; Rosen, 1951) is the technique used in obtaining agreement between the Rorschach inkblot and the verbal concept. In the previous studies, the subject was required to point to a card which he would select as representing the verbal concept which was orally given to him. For example, the subject would be requested to point to a card that represented father.



This procedure would give the subject several cues from which to proceed. First of all he knows that one of the cards is supposed to represent father and he can proceed to eliminate some (possibly Cards IX and X which are multicolored). Secondly, there is a forced choice situation, i. e., he must select a card. In this process for example Card I has an area which may be perceived as a part of a female body. A subject in Meer and Singer's study who may have consciously or unconsciously perceived the female area on Card I would probably eliminate this card as representative of father. This procedure therefore permits a greater chance for Card IV to be selected.

In the present study the semantic properties of the stimuli are studied individually, and a statistical tool (D-score) is used to make the comparison. For example, while the subject rates Card IV on the semantic differential, he has no awareness of the concept it is supposed to represent. Verification of this point is partially supported by the experimenter's own experience in explaining some of the hypotheses involved to the subjects after the completion of the ratings. Most students showed great surprise when the hypothesized relationships were explained. This surprise suggests that they were unaware of the predicted relationships. The subject's task in the present study would not benefit from awareness that a card is to be related to a concept; nor is there a forced choice. The elimination of these cues as well as the more stringent statistical test (mentioned in the previous section which dealt with the manifest level concepts) would partially account for the failure to obtain significant results.

Cards III and VII which had results in the predicted direction have an overlap with regard to the pattern of the concepts which could not be excluded. There is a parallelism between Card III and VII in that neither can be separated from rivalry nor from male sex organ. Thus both Cards III and VII cannot be distinguished from a pleasing mother, a male sex organ, and rivalry, but in each case the relative degree of similarity



is different. It would appear that these concepts, along with the two Rorschach cards, form some type of semantic unit.

Card III was symbolic of triangle on the manifest level and a trend toward rivalry on the latent. This tendency suggests that Brown's (1953) hypothesis of rivalry may be correct. It also tends to support Davis and Bonier's (1960) finding of Card III being representative of rivalry.

There appears to be an interesting occurrence for Card III when its predicted manifest concept is compared to those latent concepts which could not be excluded from its meaning. The concept triangle, was selected on the basis of its psychoanalytic meaning. Melanie Klein (1932) stated that triangle is related to the family situation of the child and two parents. The idea of "two is company and three is a crowd" or "eternal triangle" is related to the oedipal period and the sexual fantasies and rivalry that are present. In psychoanalytic theory a symbol is the result of a condensation so that many latent elements are disguised into a new concept. Thus, if one were to ask subjects directly whether they thought that "triangle" was symbolic of the elements Klein mentioned, probably they would not think so. However, in relation to Card III the subjects could not exclude male sex organ, and a pleasing mother on a latent level (see Table 7). These concepts are some of the aspects of a psychoanalytic definition of the symbol, triangle.

The results also suggest that Card VII is significantly more similar in meaning to a pleasing mother than to mother. This demonstrates the card clearly evokes a pleasant feeling. This is also consistent with Brown (1953) who states that it is the soft-textural qualities that evoke a feeling of mother. In so far as other studies (Hirschstein and Rabin, 1955; Meer and Singer, 1950; Rosen, 1951; Little, 1959) have indicated a similarity to mother on Card VII, their results are partially consistent with the present data. It would be more accurate to say that it tends to be a pleasing mother, and certainly not a punishing mother. It also does



not appear to be just pleasantness since another concept, a happy childhood, which was reacted to as pleasant is significantly different from Card VII.

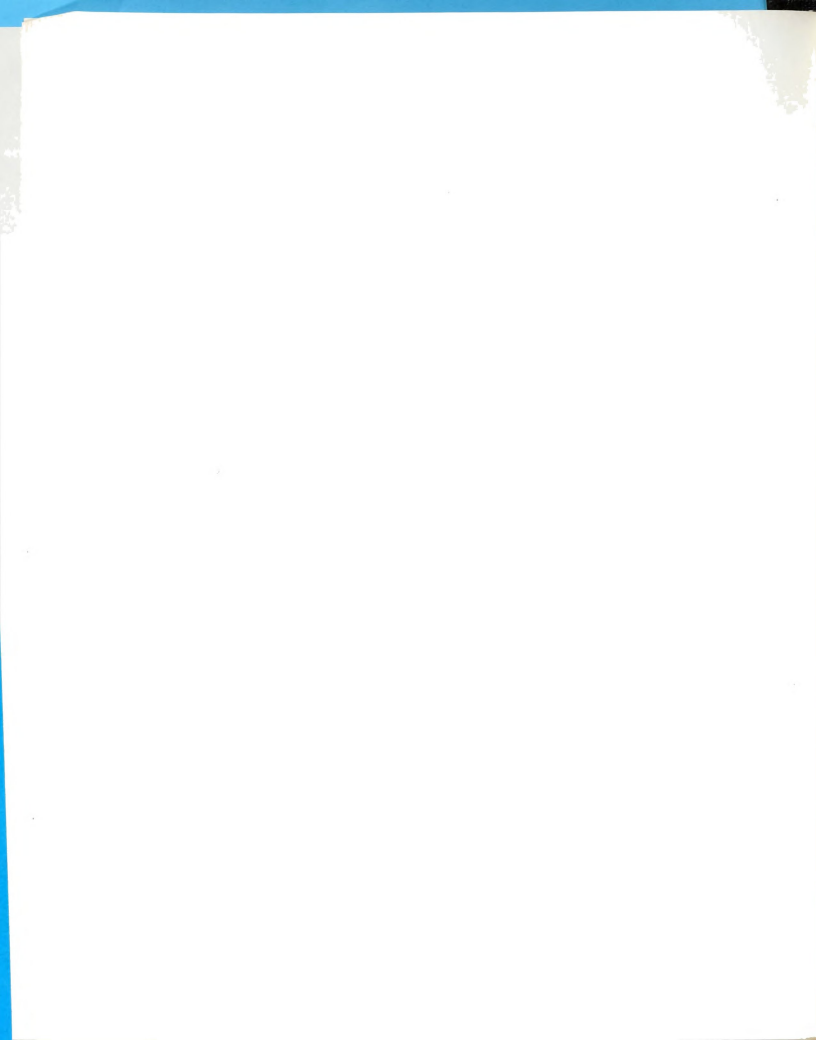
There were two cards for which a punitive parent figure was hypothesized, Card IV to a punishing father and IX to a punishing mother. Looking at Table 7, Card IV is more similar in meaning to a punishing father than punitiveness or a punishing mother; both at .05 level. Thus it appears not to be just concerned with punitiveness or negative evaluation. It appears that a male aggressive element is involved with Card IV in the form of a punitive father. There is also present a theme of the unhappy childhood. Card IV is significantly more similar to a punishing father than father at the .001 level. Thus, it is more a punishing father card than a father card or simply authority as Bochner and Halpern (1945) claim. It would seem that Klopfer's (1954) hypothesis is most in accordance with the results obtained in this study. He considers Card IV as representative of male aggressive authority; however, this does not mean that the concept father is equated with such expressions. Normal subjects are expected to have a concept of father which on an overall basis is positive, and expressions of aggressive behavior would be associated with their view of a punishing father. This is suggested by the data. Neurotics and psychotics would perhaps be more expected to react to Card IV as father, since there is reason to assume that their concept of father is equated with a punishing father. This would be one suggestion for future research, and will be discussed more fully later.

There appears to be an interesting occurrence for Card IV when its manifest level concept is compared to those latent concepts which could not be excluded from its meaning. These concepts which could not be excluded on Card IV were rivalry, a murderous impulse, and an unhappy childhood. Since Card IV is no more similar in meaning on a latent level to a punishing father than these other concepts, no one concept may

be hypothesized to be the main element for the manifest symbol, monster. This would be consistent in part with Freud (1938) who considered monster as representative of an aggressive father. The other concepts are not inconsistent with the symbolic meaning of monster.

Card I does not have the specific meaning hypothesized. It is apparently more similar in meaning to concepts which have a punitive or hostile quality. It also appears that Card I evokes a negative as well as potent theme which is not necessarily involved with a female figure only. This result is not in agreement with Schleifer and Hire (1960) who call Card I a rejecting mother figure. It is in agreement with Davis and Bonier (1960) who found Card I also to be a punishing father. It is also similar to Taniguchi et al. (1958) who found Card I and Card IV to be a father symbol with Japanese subjects. Because of cultural factors Taniguchi et al. reported a positive connotation. Thus Card I is not limited to a female symbol, despite the popular response of a female body. It appears to be consistent with a general negative theme, such as punishing or punitiveness.

Card II is only more similar in meaning to a happy childhood than to a murderous impulse and to an unhappy childhood. It could not be separated from other concepts, one of which was childhood. It appears that the concepts which are relevant for Card II cover a wide range of concepts and therefore it has no particular meaning. If one raises an alternative hypothesis such as, "Is Card II closest in meaning to the control concept, childhood, than to any other latent level concepts?" then the results obtained this way give more clarity. Card II is not significantly closer in meaning to childhood than all the other concepts; however, it is in the predicted direction. Furthermore, this way the relationship of Rorschach Card II to the negatively evaluated concepts, may be excluded as significantly different than the Rorschach Card II to childhood. It may be that Card II is more related to childhood experiences which are either positive or negative depending upon the individual's own experience.



The results for Card VIII and IX do not show the particular hypothesized meaning for each of them. The obtained results suggest that the hypothesized concept for each of these cards was an inaccurate choice since the Card VIII is not even more similar than any one other latent level concept, and Card IX is only more similar than one other latent level concept.

Additional Results:

Analysis of hypotheses according to sex: The males and females differed on the manifest level concepts with respect to Card III. The males were able to relate Card III as more similar to triangle than to any other concept; while the females could not, although the results were in the predicted direction. Thus Card III is symbolic of triangle only for the males. The females could relate Card III as more similar to triangle than to all the other concepts with the exception of queen. The females cannot relate Card III to the symbol of rivalry more than to the latent symbol of mother. Since this is the only difference it is apparent that the sexes do not differ appreciably with regard to the first hypothesis.

On the latent level the sexes differ with regard to Card IV. On this card the males have results which relate Card IV to a punishing father in the predicted direction. The females do not tend to relate Card IV as symbolic of a punishing father. Both sexes give results which are in the predicted direction for Cards III and VII on the latent level. It is apparent that there is little sex difference with regard to the second hypothesis. Concerning those concepts which could not be excluded for each Rorschach card on the manifest and latent levels, the data suggest a sex difference with regard to the hypothesis for the latent level concepts. The sexes appear to be more different on those concepts which could not be excluded for the latent level concepts. The latent level would tend to permit

greater variation between the sexes since there is likely to be more ego involvement. For example, a punishing mother, a punishing father, male sex organ, or female sex organ may have more variation in meaning than the manifest level concept witch, monster, snake, and cavern respectively for males and females.

The following trends of differences between males and females obtained via inspection but not by statistical tests of significance, may point out leads for further investigation.

1. One of the sex differences is in regard to the two cards (I and IV) to which a punitive parent figure was hypothesized. The females were unable to see the card as more significantly related to the punitive parent than to rivalry. The males were able to see Card I as more significantly similar to a punishing mother than rivalry. On Card IV the males are able to see it as more significantly similar in meaning to a punishing father than rivalry, which the females cannot. It seems as if the Rorschach card involving an hypothesized punitive parent figure is more associated with rivalry in the female subjects than in the male. This would be an hypothesis for future study since it is in agreement with psychoanalytic theory which states that the oedipal rivalry is less resolved in females than in males. On Card IV there is more of a tendency for males than females to see it as a punishing father since it is in the predicted direction only for the male subjects.

2. On Card VI there tends to be a difference between the sexes in their capacity to relate it to sexual concepts. The males relate Card VI as being significantly more similar to male sex organ than female sex organ. The females cannot rate the card as being significantly more similar to either male or female sex organs. Thus, latent sexual symbolism seems more appropriate only for the male subjects on Card VI. There is another difference on Card VI with regard to the concept, an unhappy childhood. The males see it as part of the potential meaning of Card VI,



although the females do not. For the males, Card VI and its predicted latent level concept, male sex organ, could not exclude a punishing mother, rivalry, and a punishing father, in addition to an unhappy childhood. It seems logical that for the male subjects the genital area should involve association with punitive parents and an unhappy childhood because of cultural reprimands regarding sexual activities via the parents.

3. With regard to Card VII, both males and females are in agreement in relating it as significantly more similar in meaning to a pleasing mother than to any other concept. This result is in the predicted direction. There is a difference in so far as the females subjects see Card VII as significantly more similar in meaning to a pleasing mother than to a happy childhood or mother, while the males do not make this distinction. With reference to this card it would appear that the females do not consider mother as having the same qualities as a pleasing mother. It would seem that either the females are responding more to the pleasant aspects of Card VII, or they do not perceive the concept mother as pleasantly as do the males.

Relationship of the manifest concepts to the latent concepts: The assumed relationships between the manifest and the latent level concepts is supported for one case namely, queen to a pleasing mother. It is clearly not supported with regard to the assumption for skeleton. With regard to the other manifest concepts, the results are not clear-cut since the assumed similarity between a specific manifest level concept and its corresponding latent level concept is not greater than all of the other latent level concepts.

It is suggested by the data that witch could not exclude a murderous impulse and an unhappy childhood when it was related to a punishing mother. Witch appears to be consistent with meanings which suggest negative and aggressive themes associated with a female figure. It is interesting to note that witch is more similar to a punishing mother than



to a punishing father, and thus it is not merely a negative and aggressive theme alone which is involved in the concept, witch. A parallel analysis is possible for monster and its assumed relationship to a punishing father. For this assumption there is a similar overlap in concepts, that is, monster is not significantly more similar to a punishing father than to a murderous impulse and to an unhappy childhood. (Here there is an additional concept, rivalry, in the pattern.) However, monster is significantly more similar in meaning to a punishing father than to a punishing mother. Thus it appears that witch and monster cannot exclude some of the same concepts; but witch and monster connote different punitive parental figures respectively.

The patterns of semantic relationships between the manifest concept and its assumed latent level concept is not similar to the patterns of semantic relationships between the Rorschach card and its hypothesized latent level concept. For example, Card I is significantly more similar to its assumed latent level concept, a punishing mother, than to all the other latent level concepts with the exception of rivalry, a punishing father, a murderous impulse, and an unhappy childhood. On the other hand, witch is significantly more similar to a punishing mother than all the other latent level concepts with the exception of an unhappy childhood and a murderous impulse. Therefore, the failure to obtain a single latent meaning for each manifest level concept does not appear to be the cause for the inability to obtain a single latent level concept for each Rorschach card.

It would seem that the several reasons mentioned previously as responsible for the lack of clear-cut results when relating the Rorschach cards to their predicted manifest and latent level concepts would also explain the failure to obtain a specific latent concept for each manifest level one. The fact that the manifest level concepts are not universal symbols would in part account for the failure to obtain a specific meaning when the manifest level concepts are related to the latent level ones.



This failure would also be accounted for by the stringent statistical test used in this study.

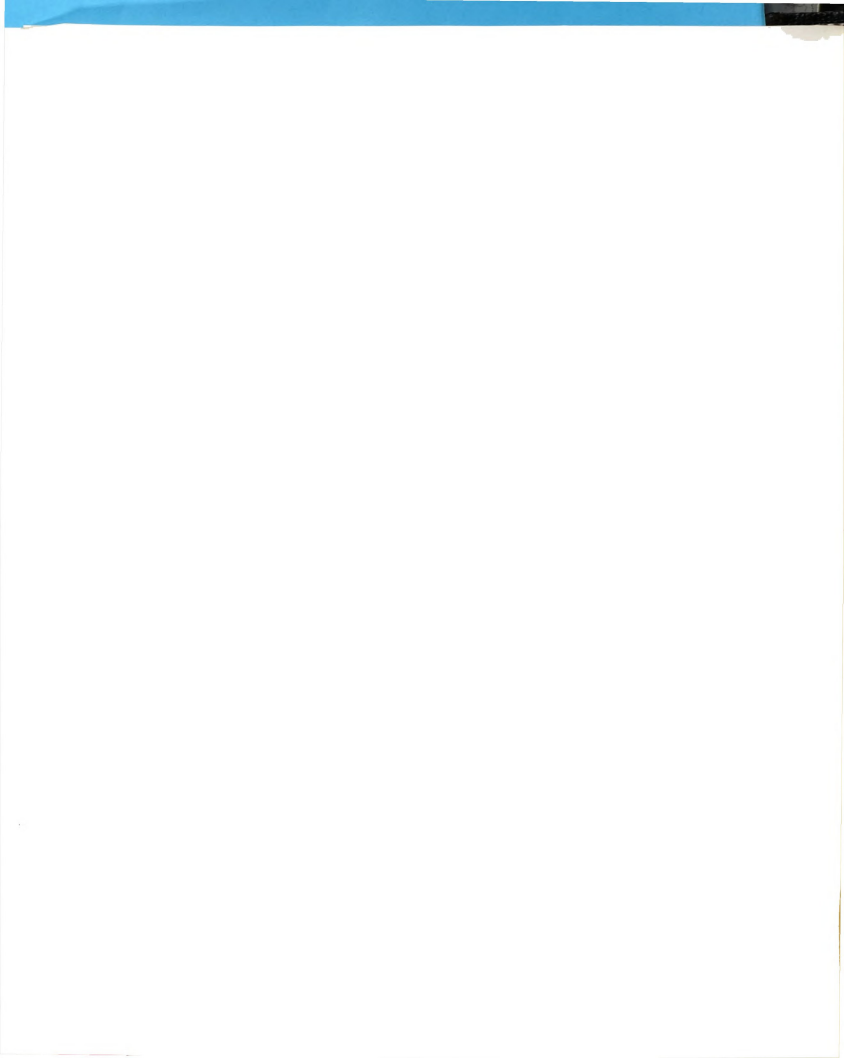
Suggestions for Future Research:

The present results for Card IV, when they are compared to those of Meer and Singer (1950), suggest further research. Meer and Singer reported that for a normal and a clinic population Card IV was chosen as a father card. However, their study suffers from the criticism made previously as all they asked their subjects to do was to point out a card that was representative of father. There were no controls for other concepts. If they had asked a punishing father as well, they might have found that this concept was more related to Card IV than father for the normals, but not for the clinic subjects. It may be possible to demonstrate this suggested difference by using separate patient populations. The hypothesis for future study would be that Card IV is more similar to a punishing father than to father for the normal population, but this hypothesized relationship would not hold for neurotics and psychotics.

Other research investigating sex differences in semantic relationships among verbal concepts is suggested by the data. Investigations would involve the comparisons of semantic relationships among different concepts for the two sexes. For example, the data mentioned earlier (p. 50) suggests the inability for female subjects to separate the concept rivalry from a Rorschach card to which a punitive parent is hypothesized. It was stated that psychoanalytic theory hypothesizes that the oedipal rivalry is less resolved in females. A future study would be to test whether the various verbal concepts which are representative of aspects of the oedipal rivalry would form different patterns when males and females are compared on the same verbal concepts.

Another avenue of study, suggested by the present data, is the investigation of language. The previously mentioned verbal concepts which

could not be excluded from the meaning of witch and monster suggests that a verbal concept may be categorized on the basis of their connotative (personalized) meaning. It may be discovered that these connotative meanings may be used as a basis for categorizing language into psychologically meaningful units. These units may differ depending upon social class, cultural background and other important variables.



SUMMARY AND CONCLUSIONS

The present study was based upon inferences which were derived from clinical experiences in the use of the Rorschach inkblots. These inferences involved two levels of symbolism for the Rorschach inkblots. The first level, manifest concepts, hypothesized that the Rorschach inkblots were similar to verbal concepts that are descriptive of dream images; and a latent level which hypothesized that the Rorschach inkblots were symbolic of certain verbal concepts which are not expressed in Rorschach responses, but may motivate the subject while responding to the Rorschach inkblots.

A review of the Rorschach literature was undertaken and a specific manifest level concept and a specific latent level concept was hypothesized for each of eight Rorschach cards. Two cards, V and X, were excluded since there is no specific hypothesis for either of them. Eight control concepts were added. In total there were 32 stimuli, composed of an equal number of Rorschach cards, manifest level concepts, latent level concepts, and control concepts.

The first hypothesis involved the following question: If the Rorschach cards have symbolic meanings representative of the verbal concepts, descriptive of dream images, it was held that each Rorschach card should be more similar in meaning to its hypothesized manifest level concept than to any other manifest level concepts and the appropriate control concepts.

The second hypothesis involved the following question: If the Rorschach cards have symbolic meanings which are not expressed in responses, but which are motivating the subject while responding to the Rorschach card, then each card should be more similar in meaning to



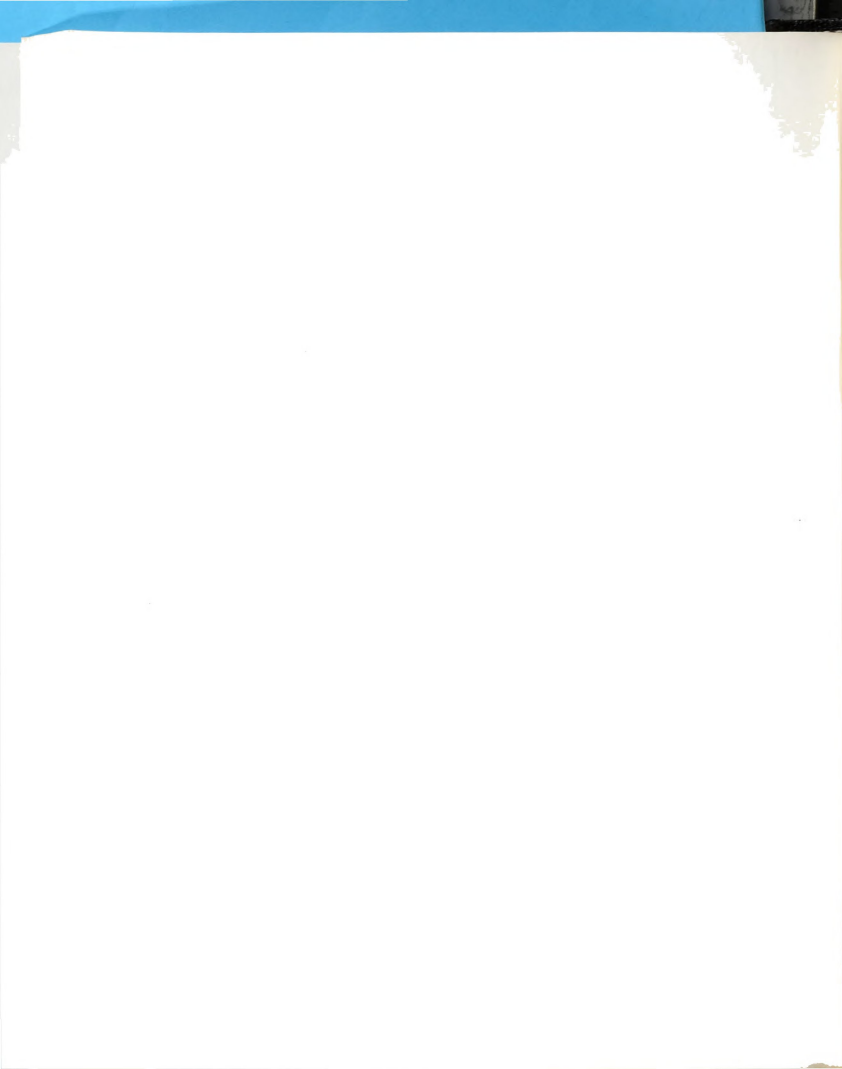
its hypothesized latent level concept than to all other latent level concepts and the appropriate control concepts.

The semantic differential, containing 20 scales, was used as the instrument to measure the meaning of the stimulus properties. The adequacy of the semantic differential for this study was discussed in the light of published research data.

The subjects were 90 undergraduates at Michigan State University, with an equal number of both sexes. The subjects were required to rate each of the Rorschach cards and verbal concepts on the same scales of the semantic differential. The Rorschach cards and verbal concepts were projected onto a screen by means of an opaque projector. The order of presentation was balanced to lessen serial effects.

The D-score was used as a measure of similarity between stimuli. The D-score was computed between each Rorschach card and each manifest, latent, and control concept for each subject. A matrix was set up for all Rorschach cards and all the verbal concepts of each level. For each Rorschach card and its relationship to both levels a sign test was computed between the column of D scores representing the predicted relationship and all other columns of D-scores in the matrix. The other columns, which varied from six to eight, represented the D-scores for the relationship of a particular Rorschach card to each of the other verbal concepts of that level and for the appropriate control concepts.

The obtained results show that Rorschach Cards III and IV have stimulus properties which are similar to the hypothesized manifest concepts. The results for the other cards do not support the hypothesis, but in some cases suggest some patterns of concepts composed of concepts which the Rorschach card and its predicted concept could not exclude. Thus, most of the Rorschach cards could have symbolic meanings that are representative of the specific dream images hypothesized in this study, but the present study does not demonstrate these symbolic meanings.



The results for the latent level concepts show that for none of the Rorschach cards is the hypothesis supported. The results are in the predicted direction for Cards III and VII. Thus, the present data does not show the Rorschach cards to have specific latent symbolic meanings hypothesized in this study. Several reasons were suggested for the failure to support the hypothesis with most of the manifest level concepts and with all the latent level concepts. Two reasons were emphasized--the lack of universal meaning of the dream images and the stringent statistical test employed.

Additional results were analyzed and discussed. These considered the hypotheses in regard to each sex. There was a suggestion of sex difference on those patterns of concepts which could not be excluded from a specific Rorschach card and a hypothesized concept.

A comparison was made between each manifest level concept and its allegedly related latent level concept. The assumed relationship was clearly supported for only one pair of concepts, "queen" to "a pleasing mother." The assumed relationships between the other manifest level concepts and their corresponding latent level concepts were not as clearly demonstrated.

The implications of the results in this study for future research were discussed.

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APPENDICES



APPENDIX I

Scales Used in This Study

good	:	:	:	:	:	:	: bad
large	:	:	:	:	:	:	: small
beautiful	:	:	:	:	:	:	: ugly
strong	:	:	:	:	:	:	: weak
clean	:	:	:	:	:	:	: dirty
tasty	:	:	:	:	:	:	: distasteful
valuable	:	:	:	:	:	:	: worthless
kind	:	:	:	:	:	:	: cruel
pleasant	:	:	:	:	:	:	: unpleasant
happy	:	:	:	:	:	:	: sad
ferocious	:	:	:	:	:	:	: peaceful
heavy	:	:	:	:	:	:	: light
clear	:	:	:	:	:	:	: hazy
masculine	:	:	:	:	:	:	: feminine
thick	:	:	:	:	:	:	: thin
honest	:	:	:	:	:	:	: dishonest
active	:	:	:	:	:	:	: passive
rough	:	:	:	:	:	:	: smooth
fast	:	:	:	:	:	:	: slow
rugged	:	:	:	:	:	:	: delicate

Instructions



If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your check-mark in the middle space:

safe _____ : _____ : _____ : X : _____ : _____ : _____ : dangerous

IMPORTANT: (1) Place your check-marks in the middle of spaces, not on the boundaries:

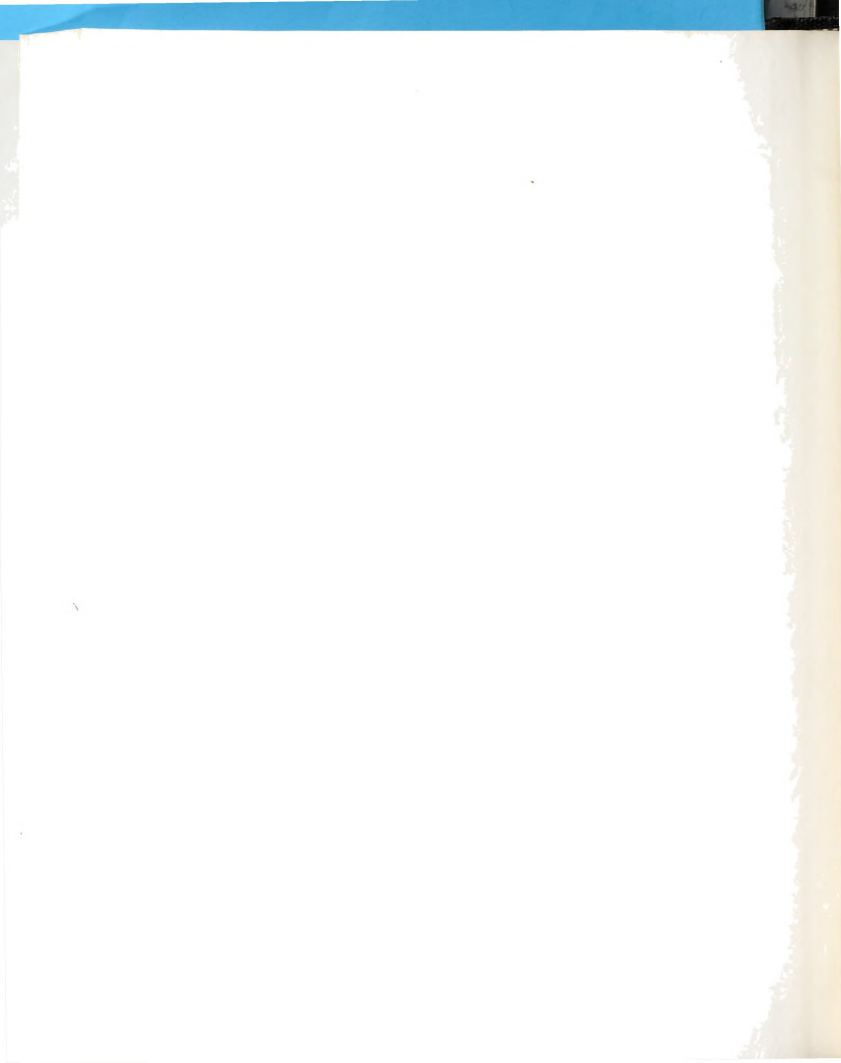
			This			NOT This			
_____	:	_____	:	X	:	_____	:	_____	:
						X	:	_____	:

(2) Be sure you check every scale for every concept--
do not omit any.

(3) Never put more than one check-mark on a single scale.

Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment. Work at fairly high speed through this test. Do not worry or puzzle over individual items. It is your first impressions the immediate "feelings" about the items, that we want. On the other hand, please do not be careless, because we want your true impressions.





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