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ANXIETY, DOGMATISM AND SHADING
(Y.YF) RESPONSES ON THE
RORSCHACH TEST

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Janice I. Potash
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ABSTRACT

ANXIETY, DOGMATISM AND SHADING (Y-YF) RESPONSES ON THE RORSCHACH TEST

by Janice I. Potash

Shading or Y-YF responses to the Rorschach Test are generally considered indices of anxiety within the context of the Rorschach protocol. This study was designed to test the validity of interpreting Y-YF responses as indicators of anxiety. It was hypothesized that individuals high in anxiety would give more Y-YF responses to the Rorschach than would individuals low in anxiety.

Sixty-two freshman males were group tested on the Taylor Manifest Anxiety Scale and the Psychology Questionnaire, or Dogmatism Scale. The latter instrument was used as an additional measure, as the dogmatic individual's anxiety seemed to be theoretically similar to the anxiety Klopfer refers to in his interpretive hypothesis of Rorschach shading responses. This anxiety is of a "diffuse and free floating nature, reflecting a frustration of affectional satisfaction." It was thus hypothesized that those individuals high in dogmatism would also be highly anxious. This relationship was confirmed by a significant chi-square and a significant correlation between the measures of dogmatism and manifest anxiety.

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Individual Rorschachs were administered to 47 of the students who had participated in group testing. It was found that those individuals high in either or both Taylor anxiety and dogmatism did not give significantly more Y-YF responses to the Rorschach.

The study also postulated that freshman males high in dogmatism and anxiety would have parents scoring high in dogmatism. The parents of the subjects were administered the Psychology Questionnaire, by mail, and 50 pairs responses with completed tests. No significant relationship was found between parental dogmatism and subjects' dogmatism, or between parental dogmatism and subjects' manifest anxiety.

The results of this study then show that pre-adult males are neither anxious nor dogmatic because of parental dogmatism. Those individuals highly dogmatic are also highly anxious, but they do not indicate these states by giving proportionately more Y-YF responses to the Rorschach. Therefore, it is believed that Y-YF or shading responses to the Rorschach are not indices of anxiety within the Rorschach protocol.

Approved E. L. Winder Chairman

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By

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Historical and Theoretical Background

According to most clinicians, the shading response to the Rorschach Test can be interpreted as an index of anxiety. This is in line with the hypothesis of Rorschach psychologists, specifically Klopfer, who state that such responses (K and KF) "indicate anxiety of a diffuse and free floating nature, reflecting a frustration of affectional satisfaction." (7, p. 268) However widely accepted such an interpretation is, the literature reveals a paucity of research directly aimed at validating this hypothesis either per se or in the context of an entire Rorschach protocol. In a 1940 summary of the literature on the shading response, Hertz (6) stated that although meager, the evidence seemed to support the relationship between the K or Ch categories and anxiety, depression, fear, and uneasiness. The purpose of this paper is both to review the relevant literature, post 1940, and to report a research study designed to investigate the above aspect of the Rorschach.

The major empirical contribution "designed to investigate the validity of the interpretation of anxiety from the shading response on the Rorschach" is a study by Waller. (14) She hypothesized that there would be a positive correlation of shading responses on the Rorschach with other clinical measurements of anxiety, in a psychiatric population; and also that use of the Baughman paired comparison inquiry would lead to a greater number of shading responses than obtained with the regular inquiry, as well as enhance any existing relationship

between shading responses and other anxiety measures. The subjects were 60 literate psychiatric in and out patients who were not psychotic and had no organic impairment. The procedure involved an interview with each subject from which two ratings were made: one of overt clinical signs of anxiety (handwringing, etc.), and another involving a seven-point scale of overall impression of anxiety. In addition the subjects were given the Vocabulary and Word Fluency scales from Thurstone's P.M.A., the Welsh Anxiety and Taylor Manifest Anxiety scales.

In the Rorschach testing, 30 of these subjects were administered the free association and regular inquiry; the other 30, the free association and the Baughman paired comparison inquiry. The latter procedure involves use of each particular Rorschach card during the inquiry plus a series of similar cards in which various determinants of the Rorschach card are omitted. The individual is asked if his percept of the Rorschach card is still present in the Baughman card; and thus the exact determinant is presumably specified.

It was determined that the subjects were comparable in P.M.A. scores, education, and total number of responses to the Rorschach. In scoring the shading responses (Y,V,T), the reliability between judges ranged from .95 to .98, without regard for the particular kind of shading. For analysis the shading responses were weighted and totalled, with the exception of texture responses which were analyzed separately. The one

hypothesis confirmed of the proposed three was that the use of the Baughman paired comparison inquiry led to a greater number of shading responses than that obtained with the regular inquiry procedure (significant beyond .01 level). No significant relations were found between any of the objective anxiety ratings or test scores with the shading responses on the Rorschach. However, a relationship between texture responses and overall impression of anxiety was noted, which lends some support to the aforementioned first hypothesis.

In conclusion the author questioned the use of anxiety as a unitary concept. This observation may point to a possible explanation of the negative results for the first hypotheses; the anxiety reflected by shading responses on the Rorschach may not, in fact, be exactly the same kind of overt anxiety as that measured by either the Taylor or Welsh scales or the behavioral ratings.

Several criticisms can be made of Waller's study. One could question the rationale for using the Taylor and Welsh scales with a psychiatric population. However valid such a paper and pencil test is, the caution exercised in making inferences from the scores of a "normal" population should be intensified when interpreting psychiatric patients' scores. In addition, the subjective evaluation of an individual's anxiety, based on a single interview, leaves much to be desired in the way of accuracy for research purposes. However, the major flaw in methodology appears to concern the treatment of Y, V, and T

responses as equal indices of anxiety. The investigator attempted to discover the validity of interpretations of anxiety from shading responses on the Rorschach. The theoretical hypotheses for this interpretation do not refer to all shading responses (Y,V,T) but specifically to the K or Y determinants.

Eichler designed a study for the purpose of investigating the effects of stress-produced anxiety upon 15 Rorschach factors, commonly declared to be signs of anxiety. Among the 15 hypotheses the one concerning shading responses predicted an increased number of weighted shading responses ($FSh = .5$, $ShF = 1.$, $Sh = 1.5$) as a function of stress-produced anxiety.(4)

Sixty college students matched on age, college year, cumulative grade point average and on certain factors on the Behn-Rorschach test, were equally divided into experimental-stress and control groups. Experimental stress was produced by the administration of electric shock of increasing strength, the examiner's implications of stronger shock to come, and the use of certain equipment for effect. Both groups were given continuous subtraction problems immediately before the Rorschach. The experimental group were shocked during the subtraction but not during the Rorschach. After the Rorschach both groups completed self-ratings on an anxiety-tension scale.

The results showed that the experimental group made significantly more mathematical errors and were significantly more anxious or tense on the scale. In addition, four of the

Rorschach indices reflected the conditions as predicted, and among these four was an increase in weighted shading responses. These positive results were considered as evidence for the role of weighted shading responses et al. as anxiety indicators on the Rorschach.

Allerhand (2) attempted to discover if there was any relationship between the chiaroscuro (shading) responses to the Rorschach and the manner and degree of expression of anxiety in experimental problem-solving situations. Fifty college students were each subjected to two problem-solving situations, similar except that one involved no conflict and the other, an avoidance-avoidance conflict. The anxiety criterion was based on a series of behavioral movements, rated as suggestive of anxiety by clinical psychologists and psychiatrists. The Rorschach protocols and manifest anxiety inventory scores were obtained before the problem-solving situation; there was a lapse of three weeks between the two sessions.

A decided increase in the number of "anxiety" responses was emitted by the subjects in the conflict situation compared to their reactions in the nonconflict situation; therefore, it was concluded that the conflict situation was in fact eliciting an increase in anxiety.

Of the 66 correlation coefficients between the shading variables and anxiety criteria variables, 13 were significant (which is greater than the number expected by chance). The texture determinants were most consistent and effective in

indicating overt anxiety, and also showed a significant relation with factors which tapped the subject's mediate and immediate reaction to a conflict situation. These determinants were correlated with the total of the individual's anxiety signs during the nonconflict and conflict situations and in the test periods after each problem-solving situation. The factors Ch and Y were also significant at the five per-cent level on the prediction of anxiety potential.

These last two studies carried out to a fine degree what they purported to do and restricted experimentation and results to a specific situation with well defined criteria. The three previously discussed studies, therefore, indicate no relationship between clinical measures of anxiety and shading responses on the Rorschach, but do provide two cases of a positive relation between experimentally induced anxiety and shading responses on the Rorschach.

The two following articles deal with the Rorschach and anxiety, using children as subjects. Sarason, et al., (11) investigated the Rorschach behavior and performance of high and low anxious children matched for grade (second through fifth), sex, and intelligence scores. The measure of anxiety was obtained by the use of Test Anxiety and General Anxiety scales, constructed by the investigators for this research project. A relatively brief and blind clinical analysis by Sarason of the Rorschach protocols for each of the 32 high and 32 low anxious children, resulted in significant discrimination

with the p value being .03. However, Sarason did not specify which aspect of the Rorschach he used to make the discriminations. The 64 records were then arranged into the 32 matched pairs; 18 of the 32 were correctly categorized, the result being significant at only the .30 level. The highly anxious children, among other things, responded less to any aspect of color (chromatic, achromatic, or shading) on the cards than did the low anxious subjects.

Levitt (8) approached the same area by a different route, in an attempt to assess children's use of the Rorschach variables which are commonly regarded as anxiety indices in adults. (These indices are low on W, P, M, sum C, and total number of responses; high on Hd, Dd, A, and sum Y). The subjects were 39 children's clinic patients, mean age of 10.70, and 155 normal children, mean age of 10.75. Of nine significant differences (related to the analysis of average frequency or percent), only the frequency of the shading responses was in the predicted direction, high on sum Y. With the group of clinic patients no Rorschach variable was found related to the scores on the Children's Manifest Anxiety Scale. The investigators determined that neither the effects of the differential sex ratios within the two groups nor the variabilities of age between the two samples significantly influenced the results. It was concluded that, thus far, only the frequency of the shading responses on the Rorschach can be considered an anxiety indicator in children.

Levitt's study makes a valuable contribution in showing that a difference exists between Rorschach anxiety indicators for children and for adults. The results found with the children's clinic patients' Rorschach protocols and anxiety scores raises a relevant question - the sagacity of using objective anxiety scales as anxiety measures of clinic patients. In a comparison of Levitt's research with Sarason's, however, the most obvious facet is that the studies present contradictory results. It seems reasonable to attempt to explain this contradiction in terms of the different mean ages of the two studies' groups, the different measures of anxiety used, and especially the different methods of analyzing the data.

These five articles do not seem to be particularly strong pieces of evidence for either accepting or rejecting the anxiety interpretation of the Rorschach shading responses. Among the weak points of the studies, the major difficulty seems to lie in delineating a specific, independently measured type of anxiety. It is the writer's belief that such a measure of anxiety would contribute a great deal toward validation of the major hypothesis.

Before presenting theoretical background for such a research project, it would seem wise to clarify the writer's views on any research which attempts to validate a Rorschach interpretive hypothesis. In making interpretations from a Rorschach protocol, one never makes an inference from one response without also considering the response in the context

of the entire protocol. In other words, there is no one-to-one relationship between any Rorschach variable and an aspect of the personality. Perhaps in view of this, a research study to validate the anxiety interpretation of Rorschach shading responses seems contradictory and of no value. However, it is the writer's contention that the interpretive hypothesis bears testing not as the specific determinant of anxiety but as a part of a theoretical framework of Rorschach interpretation.

In interpreting the Rorschach responses in their context, each determinant has associated with it a tentative interpretive hypothesis. Although we cannot validate an interpretive hypothesis as a specific and universal indicator simply because it does not purport to denote a one-to-one relationship, we can assess the validity of the hypothesis' position within the entire interpretive framework. The research here will not attempt to establish a one-to-one relationship between the K or Y responses and anxiety, but will try to indicate the strength of the relationship. It would seem that with a group of individuals, independently designated as high in a specific type of anxiety stemming from frustrated dependency needs, one could expect more Rorschach shading (K, KF or Y, YF) responses than from another group low in the particular anxiety. With these points in mind the next step is setting ourselves to the task of specifying a type of anxiety that is not only present in the individual's overt behavior but also has specified roots in the individual's character formation and development.

The work done by Adorno, et al., in The Authoritarian Personality not only has been enlightening in itself but also has pioneered a very important and stimulating research area. The major hypothesis of Adorno's study was that "the political, economic and social convictions of an individual often form a broad and coherent pattern as if bound together by a mentality or spirit which is an expression of deep-lying trends in his personality." (1) One of the most crucial results of the study was the finding that the individual shows strong consistency in his approach and outlook in a great variety of life situations. "Thus a basically hierarchical authoritarian, exploitive parent-child relationship is apt to carry over into a power-oriented, exploitively dependent attitude toward one's sex partner, one's God, conventionality, rigidity, repressive denial; and the ensuing breakthrough of one's weakness, fear and dependency, and the culmination in a political philosophy and social outlook which contains only a desperate clinging to what appears to be a strong and disdainful rejection of whatever is relegated to the bottom, are all offshoots of this authoritarian upbringing." (1) A broad, general statement such as this appears to imply two important points: one, that the parent-child relationship has profound effects upon the formation of the child's personality, needs, and ideology; and two, that the child of an authoritarian upbringing may be a stronghold of authoritarianism in his relations with other people.

Some attempt has been made to assess the attitudes and

behavior of parents whose children score high on authoritarianism - ethnocentrism. The rationale of a study by Lyle and Levitt (9) lies in a statement made by Frenkel-Brunswik (5): parents of high ethnocentric - authoritarian children tend to "use more harsh and rigid forms of discipline" than parents of children less high on ethnocentrism - authoritarianism. The Lyle and Levitt study investigated the interrelationships among 1: ethnocentrism - authoritarianism in children, 2: the child's willingness to be punitive, and 3: the punitiveness of the parents as the child saw it. The subjects were fifth grade children composed of two groups of 58 and 157 individuals. The measures used for each of the above variables, respectively, were the CADS (a children's form of the California F Scale, which was used as an indirect measure of authoritarianism), PST (a multiple choice situations test), and an incomplete sentence test. The data supported all three hypotheses: parental punitiveness had a positive correlation (Pearson $r = .34$, significant at .01) with the child's punitiveness; ethnocentrism - authoritarianism in children had a positive correlation with parental punitiveness as the child saw it and also with the child's willingness to be punitive. This last finding was qualified to situations where the child could express punitiveness without fear of retaliation.

It is interesting to speculate as to the possible authoritarian rating of the parents of the high authoritarian children. Since no such measure was made, these points will

have to be inferred from the previous theory. It seems probable, however, that these parents would themselves score high on authoritarianism for two reasons; first, although "punitiveness" is not spelled out in Adorno's description of the authoritarian parent-child relationship, it would logically seem that such behavior would produce the rigid, emotionally cold relationships described. And second, although authoritarianism in an individual possibly can develop from sources other than an authoritarian up-bringing, authoritarianism in fifth grade children is most likely a result of the parent-child relationship, since the child has not yet had much opportunity to develop independently of his parents' attitudes and behavior.

Singer and Feshbach (12) carried out a study which gives us further insight into the ramifications of the authoritarian personality. A sample of 147 male college students was given a questionnaire composed of the Taylor Manifest Anxiety Scale, the California F Scale, and the Child-Waterhouse Reactions to Frustration Scale, in an attempt to discover the interrelationships among these three indices. A significant positive correlation (Pearson) was found between the F Scale and Taylor Scale, the correlation being accounted for primarily by the relation between the high scores on each of the two scales. The subjects with middle and low F Scale scores were almost identical on the Taylor Scale.

Again one may speculate on possible interpretations and

hypotheses from the study. Here is a positive relationship between authoritarianism and manifest anxiety, which suggests that perhaps high anxiety is a function of the authoritarian character. This seems more plausible when viewed in the light of the non-existent relationship between the middle and low scores of the F Scale and Taylor Scale. Perhaps another aspect of an authoritarian character structure is, then, a great deal of anxiety. Such an inference would seem logical both from the results of this study and also from the general description made by Adorno of the "weakness, fear, and dependency..." in an authoritarian personality.

As stated previously the study of the "Authoritarian Personality" by Adorno, et al., has proved a valuable and fruitful area of research. However, there have been some severe criticisms of the study's measuring devices and implications. First, the California F Scale elicits a response set; individuals may score high on the scale simply because they tend to agree with any statement put to them. And second, the investigators are theorizing about one kind of authoritarianism, not authoritarianism per se, but predisposition toward fascism.

Such criticisms have been levelled, in the main part, by Rokeach (10) who advocated a departure from the study of right authoritarianism to the study of general authoritarianism. In making this transition Rokeach focused on the study of belief systems as a whole, rather than on belief content alone, and evolved his theory of the organization of belief-disbelief

systems. Briefly, this theory states that all the expressed and inferred beliefs of an individual, that he accepts at a given time as true of the world in which he lives, are organized into an interrelated system. The dimensions of this organization are belief-disbelief, central-peripheral, and time-perspective. The system is open or closed with respect to its organization along the continua of these three dimensions. Thus the individual accepts or rejects people, ideas, and authority, according to how well they fit into his existing belief-disbelief system. The instrument used to measure the individual's position in terms of openness or closedness of belief system is the Dogmatism Scale (a scoring form applied to the Psychology Questionnaire).

Rokeach's theory has stimulated a great deal of thought and research; however, for the research in this paper, only the study by Rokeach and Kemp (10, ch. 19) is relevant. They suggested that "to the extent that a belief-disbelief system is closed, it represents a cognitive network of defenses against anxiety. This leads (us) to the simple hypothesis that those with relatively closed systems should manifest more anxiety than those with relatively open systems." An additional hypothesis was "that the differences in openness-closedness and anxiety should be traceable to differences in childhood experiences." (10, pp. 347-348)

Various groups in the United States and England were tested using the Dogmatism Scale and an anxiety scale composed

of 30 items from the MMPI, many of which overlap with the items on Taylor's Scale. Information about childhood experiences was obtained by getting the subjects' answers to several questions concerning their attitudes "toward father and mother, anxiety symptoms they had manifested in childhood, and the nature of the identifications they had formed in childhood." (10, p.337)

A correlation ranging from .36 to .64 was found between anxiety and dogmatism scores, and a factor analysis of the data showed that dogmatism and anxiety were similar factorially. The data on childhood experiences was consistent, for the main part, with Frenkel-Brunswik's idea that "the inability to express emotional ambivalence toward parents predisposes one to form an authoritarian outlook on life." (10, p. 359)

From the various theories and studies cited, it can be postulated that the parent-child relationship of the dogmatic individual is likely to be or have been a threatening one in which the parents (most likely also dogmatic) were emotionally cold and punitive toward the child; and the child did not express his ambivalent feelings toward them. From Rokeach's theory it was seen that the dogmatic individual (exemplifying closed-mindedness) is the one who clings tenaciously to his belief system which he has developed to protect himself from the world, which he perceives as highly threatening. He most often immediately rejects the intrusion of beliefs contradictory to his own, and rejects or accepts other individuals according to their agreement or disagreement with all authority

which he views as absolute. The dogma of this individual acts similarly to the network of psychoanalytic defense mechanisms; and he is perceived as threatened, defensive, and, most importantly, extremely anxious.

Such anxiety seems to be highly similar to the anxiety Klopfer refers to in his interpretive hypothesis of Rorschach shading (K and KF) responses, which is "of a diffuse and free floating nature, reflecting a frustration of affectional satisfaction." (7) In view of this it would seem reasonable to make the following hypotheses:

1. A dogmatic individual will give more K or Y shading responses to the Rorschach than will a non-dogmatic individual.
2. A dogmatic individual will score higher on a manifest anxiety scale than will a non-dogmatic individual.
3. An individual high in anxiety will give more K or Y shading responses to the Rorschach than will an individual low in anxiety.
4. A dogmatic individual will have parents score higher on dogmatism than will a non-dogmatic individual's parents.
5. A high-anxiety individual will have parents score higher on dogmatism than will a low-anxiety individual's parents.
6. A high-anxiety, dogmatic individual will give more K or Y shading responses to the Rorschach than will a low-anxiety, non-dogmatic individual.

Procedure

To test these hypotheses a sample of 62 college freshman males from introductory psychology classes were used as subjects. Verbal announcements were posted asking for research volunteers; in return for participating, the subjects were given extra credit toward their psychology class grades.

The subjects were individually given the Rorschach Test, and in several small groups, the Taylor Manifest Anxiety Scale and the Psychology Questionnaire. The last instrument is composed of 76 statements with which the subjects indicates degree of agreement or disagreement along a six point scale. The test was scored for dogmatism, with the intention of measuring the individual differences in openness or closedness of belief systems.

In addition to the above measurements, the investigator asked for the co-operation of the subjects' parents. Each subject was given a copy of the Psychology Questionnaire and answer sheets to send to his parents. The parents were asked, by letter, to complete the test and return the materials to the investigator by mail. The letter read as follows:

Dear Parents:

I am a graduate student in Psychology at Michigan State University, presently collecting data for my thesis research. Your son is one of the freshman men who has volunteered to serve as a subject for this research.

Enclosed is a copy of a Psychology Questionnaire, which your son has already completed. I would greatly appreciate it if you would also complete the

questionnaire, as I am interested in the correlation between son's and parents' opinions. If you are willing to participate, the enclosed directions and answer sheet are self-explanatory. All of the testing is anonymous since I know you and your son by number only. I would be grateful if you would return this folder as soon as possible; I have enclosed a stamp and return address label.

Thank you very much for your time and co-operation.

Sincerely,

As stated in the letter to the parents, all testing was done anonymously with the subjects identified only by number and each set of parents given numbers corresponding to that of their son.

The rationale for the use of the Taylor Manifest Anxiety Scale may be questioned in light of the results reported by Waller.(14) However, it is believed by the writer that Waller's data proved non-significant because she combined all Rorschach shading responses (Y, T, V) for a total score and also used a psychiatric sample. In the present study, the results were expected to show not only a positive correlation between dogmatism and manifest anxiety, such as reported by Rokeach and Kemp (10, ch. 19), but also a greater number of Rorschach Y and YF responses from the individuals high on dogmatism than from the non-dogmatic individuals.

The Rorschach was administered by the investigator and was scored according to the Beck system, using Y and YF to correspond to Klopfer's K and KF responses. The protocols were scored by the investigator and independently by another graduate

student in clinical psychology. A total of 94 per cent agreement was obtained on the Y-YF scoring of the 47 protocols.

Results

Individual Rorschach tests were administered to 47 of the 62 students who participated in group testing. Of the remaining 15 students, 12 did not appear for the scheduled appointments, and three gave very lengthy protocols which could not be completed. Of the 62 sets of parents asked to participate in the research project, 50 pairs (80.6%) responded. In addition, eight unpaired parents (two fathers, six mothers) filled out the questionnaire. Thus, a total of 87 per cent of the parents participated in the study.

Scores on the Taylor Manifest Anxiety Scale ranged from three to 36 with a median of 14.5. The median for the sample is slightly higher than the median of Taylor's standardization sample, which has a median of 13. (13, p. 285) Subjects scoring 14 and below were classed as the "low anxiety" group, and those with scores of 15 and above were called the "high anxiety" group. College students' scores on the Dogmatism Scale ranged from 117 to 219; the median score was 155.5 with those below classed as "low dogmatic" and those above as "high dogmatic" individuals. The frequency distribution of the parents' dogmatism scores ranged from 94 to 208 with a median of 158.5. Only those cases in which both parents responded were used in determining the median. The scores below the median were called "low dogmatic" and those above, "high dogmatic." The dogmatism scores in this study were comparable

to those obtained by Rokeach.*

The data for the six hypotheses were analyzed by chi-squares. The results show no significant relationship between shading responses to the Rorschach and any of the other measures used in this study. Neither the high dogmatic nor the high anxiety group gave more Y-YF responses to the Rorschach than did the low dogmatic or the low anxiety group. (See Tables 1 and 2) Also, the number of Rorschach shading responses from individuals high in both dogmatism and anxiety did not differ significantly from the number of shading responses from individuals low in both anxiety and dogmatism. (See Table 3) Hypotheses one, three, and six were thus not supported.

Table 1. Relationship between subjects' shading responses and dogmatism scores.

		Subjects' shading responses	
		Y	No Y
Subjects' dogmatism scores	High	14	11
	Low	10	12

chi-square = < 1

* personal communication

Table 2. Relationship between subjects' shading responses and anxiety scores.

		Subjects' shading responses	
		Y	No Y
Subjects' anxiety scores	High	13	11
	Low	11	12

chi-square = < 1

Table 3. Relationship between subjects' shading responses and anxiety - dogmatism scores.

		Subjects' shading responses	
		Y	No Y
Subjects' anxiety - dogmatism scores	Both high	8	8
	Mixed	11	6
	Both low	5	9

chi-square = 2.59, significant between .50 and .75 levels

A relationship at the .025 level of significance was found between dogmatism and manifest anxiety, confirming the second hypothesis that dogmatism and anxiety are related concepts. (See Table 4) In addition, the data on anxiety and dogmatism were analyzed by the correlation coefficient. The relationship between subjects' anxiety and dogmatism was significant, with an r value of .725. Subjects high in dogmatism tended to be high in anxiety, and those low in

dogmatism were also low in anxiety.

Table 4. Relationship between subjects' dogmatism and anxiety scores.

		Subjects' dogmatism scores	
		High	Low
Subjects' anxiety scores	High	20	11
	Low	11	20

chi-square = 5.04, significant at .975 level

Parental dogmatism was not significantly related to any measure in the study. No significant relationship was found between dogmatism scores of the parents and of the college students. (See Table 5) Also, there was no significant relation between the parents' dogmatism scores and the students' manifest anxiety scores. (See Table 6) No significant correlation was found between fathers' and subjects' dogmatism scores or between fathers' dogmatism and subjects' manifest anxiety scores. While both these correlations were non-significant, the r values were negative (and in the direction opposite that predicted). In addition, the correlations between the mothers' dogmatism scores and both subjects' anxiety and dogmatism scores were non-significant. These results give no support for hypotheses four and five.

Table 5. Relationship between subjects' and parents' dogmatism scores.

		Subjects' dogmatism scores	
		High	Low
Parents' dogmatism scores	Both high	8	7
	Mixed	9	11
	Both low	6	9

chi-square = < 1

Table 6. Relationship between subjects' anxiety and parents' dogmatism scores.

		Subjects' anxiety scores	
		High	Low
Parents' dogmatism scores	Both high	9	6
	Mixed	9	11
	Both low	7	8

chi-square = 1.7, significant
between .50 and .75 levels

The study therefore shows that in freshman males, manifest anxiety and dogmatism are related concepts. However, the results do not indicate that shading responses to the Rorschach are related to either dogmatism or to anxiety as measured by the Psychology Questionnaire and the Taylor Manifest Anxiety Scale.

Discussion

In examining the non-significant relationships between the Rorschach shading responses and the anxiety measures, it is apparent that this study offers no evidence to conclude that shading or Y-YF responses to the Rorschach indicate anxiety. Thus, the validity of interpreting Rorschach shading responses as anxiety indices remains in question.

The results demonstrate a significant relationship between the scores of the Taylor Manifest Anxiety Scale and the Psychology Questionnaire, or Dogmatism Scale. Both instruments are either measuring the same variable or measuring two different variables which have a high correlation. We may refer to these as anxiety measures or as anxiety and dogmatism. Therefore, it is possible to infer that an anxious individual becomes dogmatic for defensive reasons, or that "Taylor anxiety" and dogmatism are both types of anxiety of similar levels and intensity. According to the results of this study, such anxiety is not reflected in shading responses to the Rorschach.

It is necessary to qualify acceptance of the above conclusions, as the general concept of anxiety is still a rather hazy one. We have specified a variable, measured it by two different instruments having a high correlation, and called the variable anxiety. It is possible that anxiety is a multidimensional concept, and that shading responses to the Rorschach represent a dimension of anxiety different from the others used in this study. However, if, in fact, shading responses reflect

some kind of anxiety, one would expect a minimal but significant relationship between the different dimensions of anxiety.

The investigation of relationships between parent and child performance on these two scales provides some interesting data on the development of attitudes and emotional states in children. It was hypothesized that dogmatic parents would produce dogmatic, and therefore anxious, children. This is not the case, at least with regard to freshman males. We are left with the conclusion that no simple correspondence exists between the attitudes of parents and children. A child does not seem to become dogmatic and/or anxious because his parents are dogmatic. Considering the age of the subjects in this study, it is possible that they are at a stage of pre-adult rebellion. Thus, one would expect them to respond contrary to if not independently of their parents' attitudes and behavior. The presence of anxiety and dogmatism in these individuals must then be a function of factors other than dogmatic parents.

The drawbacks of the Taylor Manifest Anxiety Scale have been previously mentioned and discussed. The scale presents the problems of any paper-and-pencil test, viz., subject's awareness and truthfulness, test reliability and validity. However, the Taylor seems to be the best of its kind for use by clinicians. The rationale for use of the Psychology Questionnaire as an additional measure of anxiety is best supported by the significant correlation of the dogmatism scores with the Taylor scores. Again we have the limitations set by

the use of an objective test. In addition, since the parents' dogmatism scores do not have a positive correlation with any of the other data, it is possible that their scores are not valid, i.e., the parents may not have independently made responses to the test. While the subjects themselves may have been a representative sample of freshman males, the results of the study perhaps may not be permitted generalization to non-freshman populations.

However, the procedure and logic of this research do not seem to have faults sufficient enough to warrant rejection of the results. In spite of the evidence being contrary to clinical expectations, we are left with the conclusion that shading responses to the Rorschach are not indicators of anxiety.

Summary

Shading or Y-YF responses to the Rorschach Test are generally considered indices of anxiety within the context of the Rorschach protocol. This study was designed to test the validity of interpreting Y-YF responses as indicators of anxiety. It was hypothesized that individuals high in anxiety would give more Y-YF responses to the Rorschach than would individuals low in anxiety.

Sixty-two freshman males were group tested on the Taylor Manifest Anxiety Scale and the Psychology Questionnaire, or Dogmatism Scale. The latter instrument was used as an additional measure of anxiety, as it was further hypothesized that those individuals high in dogmatism would also be highly anxious. This relationship was confirmed by a significant chi-square and a significant correlation between the measures of dogmatism and manifest anxiety.

Individual Rorschachs were administered to 47 of the students who had participated in group testing. It was found that those individuals high in either or both Taylor anxiety and dogmatism did not give significantly more Y-YF responses to the Rorschach.

The study also postulated that freshman males high in dogmatism and anxiety would have parents scoring high in dogmatism. The parents of the subjects were administered the Psychology Questionnaire, by mail, and 50 pairs responded with completed tests. No significant relationship was found between

parental dogmatism and subjects' dogmatism, nor between parental dogmatism and subjects' manifest anxiety.

The results of this study then show that pre-adult males are neither anxious nor dogmatic because of parental dogmatism. Those individuals highly dogmatic are also highly anxious, but they do not indicate these states by giving proportionately more Y-YF responses to the Rorschach. Therefore, it is believed that Y-YF or shading responses to the Rorschach are not indices of anxiety within the Rorschach protocol.

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APPENDIX

Subjects' Rorschach responses, dogmatism and manifest anxiety scores.

Subject Number	Taylor Manifest Anxiety Score	Dogmatism Score	Parents' Dogmatism Score		Number of Shading (Y-YF) Responses to Rorschach
			F	M	
1.	31	164	115	124	0
2.	15	125	175	185	1
3.	18	167	198	158	2
4.	8	155	134	165	1
5.	3	129	147	146	-
6.	19	153	177	183	1
7.	5	145	122	152	-
8.	30	153	126	174	-
9.	21	168	156	179	4
10.	18	155	178	114	2
11.	9	142	-	-	-
12.	16	145	159	164	-
13.	9	131	163	158	0
14.	26	167	153	122	4
15.	7	154	200	94	3
16.	36	149	146	175	0
17.	5	159	186	197	0
18.	30	196	170	183	1
19.	11	160	120	169	3
20.	6	144	155	148	0
21.	11	179	130	143	0
22.	27	145	155	139	1
23.	18	155	156	-	0
24.	15	155	135	143	1
25.	10	141	-	-	-
26.	17	161	-	144	0
27.	25	179	189	198	0
28.	14	131	120	117	-
29.	22	151	175	167	0
30.	22	168	140	171	-
31.	12	137	153	174	2
32.	36	158	100	123	0
33.	32	160	188	208	0
34.	20	160	129	137	1
35.	36	186	161	131	0
36.	22	184	-	200	2
37.	18	156	-	-	2
38.	12	142	145	140	-
39.	8	152	191	186	0
40.	21	219	102	178	-
41.	30	180	159	178	-

Subject Number	Taylor Manifest Anxiety Score	Dogmatism Score	Parents' Dogmatism Score		Number of Shading (Y-YF) Responses to Rorschach
			F	M	
42.	35	175	165	-	-
43.	12	117	-	197	0
44.	9	157	-	147	-
45.	18	145	172	121	-
46.	10	179	156	192	3
47.	11	157	159	164	1
48.	7	142	152	139	0
49.	30	195	177	170	0
50.	11	126	133	173	2
51.	18	160	-	96	1
52.	7	158	-	158	3
53.	14	167	-	-	-
54.	13	159	160	162	2
55.	14	151	148	158	0
56.	4	145	177	183	0
57.	12	146	193	192	1
58.	16	159	138	137	0
59.	14	162	149	173	1
60.	4	151	166	128	0
61.	14	189	134	172	0
62.	3	151	171	131	0

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