Anatomical Associations on the Rorschach Test as a Predictor of Assaultive Behavior

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ANATOMICAL ASSOCIATIONS ON THE RORSCHACH TEST AS A PREDICTOR OF ASSAULTIVE BEHAVIOR

by

Keith O. Schmidt

A thesis presented to the
Faculty of the School of Graduate Studies in partial fulfillment
of the
Degree of Master of Arts

Western Michigan University
Kalamazoo, Michigan
August 1963
ACKNOWLEDGMENTS

Grateful acknowledgment is extended to my committee chairman, Dr. M. H. Robertson. His objective evaluation, continued encouragement, and generous donation of time were essential in the completion of this thesis. I wish to thank Dr. C. Koronakos, and Dr. E. J. Asher for their willingness to serve on my committee. Without their suggestions and able assistance this project would not have been possible.

Deepest appreciation is extended to Roger O. Olive, Head of Psychological Services at the Ionia State Hospital, for sharing his clinical experience, offering criticisms, and tactfully managing the many administrative problems. Throughout his benevolent paternalism has served as an invaluable encouragement to complete this study as well as motivation for future endeavors. In addition, I am grateful to my colleagues, G. G. Griffin, and H. K. Pillard for their coupling of candid comments with congeniality that aided at various stages of this project. A note of thanks must be made to P. C. Willoughby whose sympathetic ear has tolerated the inconveniences suffered by being in the dual role of personal friend and colleague.

Thanks is extended to Dr. S. J. Beck of the Psychology Department at the University of Chicago for both affording me the
opportunity to use his data and make valuable suggestions. The
author also wishes to thank personnel of the Institute for Psycho-
somatic and Psychiatric Research and Training at the Michael
Reese Hospital for their interest and cooperation when gathering
the normative data.

Appreciation is extended to C. L. Pomeroy for his tenacity
and exacting use of clerical skills when typing the many drafts of
this thesis.

Keith O. Schmidt
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INTRODUCTION

Of special concern to society is the prediction of assaultive behavior. In response to this concern, psychology along with the disciplines of sociology and criminology have tried to devise measures that would identify the potentially assaultive individual. For the most part, psychologists have centered their efforts on clinical judgments based on interviews and test data. Although no one psychological test has been found to have a clear superiority over all other tests, clinical psychologists generally favor projective techniques. Judging from the frequency of clinical usage and the quantity of research, the Rorschach Test would seem to hold some promise as a predictor of assaultive behavior.

A review of the Rorschach literature shows an increased emphasis on content in contrast to formal scoring. For example, Elizur (1959), Goldfarb (1945), Gorlow (1952), Lindner (1943), Murstein (1956), Rapaport (1946), have suggested that response content which has hostile or destructive connotations is related to aggressive feelings within the individual. Formal scoring categories have been used, but only with slight success. Finney (1953) showed apparent success using formal scoring categories. An assaultive group showed significantly more color minus (FC-, CF-) responses.
than a nonassaultive group. However, when Finney (1955) replicated the study, he found that several of the formal scores which were significant in the original study were not significant. Another investigator found that an assaultive group did not produce significantly more white-space, CF, and C responses than a non-assaultive group (Kane, 1955). Sommer & Sommer (1951) could distinguish between assaultive and nonassaultive patients on the basis of color and movement responses only when content was added to the formal scores. Attempts have been made to measure aggression in terms of the white-space response. For example, Ingram (1954) reported that subjects placed in aggression producing situations elicited more white-space responses than those examined in nonaggressive situations.

Three kinds of deviant populations have been used in the study of assaultiveness: prisoners, psychiatric patients, and those undergoing some form of psychotherapy. Kane (1955) used a hostility content scale in the study of assaultive and nonassaultive male prisoners. He assumed that fantasy would provide an outlet for hostility, thus making it unnecessary for a person to act out his aggressive impulses. Consequently, he hypothesized that assaultive inmates would show less Rorschach hostility content than nonassaultive inmates. The results were in the opposite direction. The
assaultive group scored significantly higher on the Rorschach hostility content scale than the nonassaultive group. By a similar scoring method, Sjostedt (1955) was able to differentiate between assaultive and nonassaultive female prisoners.

Statement of the Problem

Some Rorschach workers have observed that anatomy responses appear with greater than average frequency in the Rorschach protocols of individuals who have been assaultive. The content of our culture assists in this rationale. Daily, it symbolically portrays death, danger, and destruction with the sign of the skull and crossbones. The ambiguous stimuli of the Rorschach allow culture-bound individual to express, unknowingly, their aggressive wishes. Consequently, anatomy responses may be a means to reproduce what society demonstrates in the skull and crossbones. The purpose of this study is to examine the validity of that observation. It is hoped that the findings of this research may be of some value in predicting assaultive behavior.

Hermann Rorschach (1942) in his original work treated anatomical associations as an important independent factor. He observed that anatomy responses sometimes replaced the more usual animal percepts. He reasoned that the increase in anatomy associations reflected an attempt to compensate for feelings of intellectual inadequacy.
Cautiously, Klopfer (1954, p. 384) indicates that anatomical associations may be "... an attempt to deal with feelings about oneself so as to impress others with technical knowledge." He further states that the kind and quality of the response, as well as the determinants, have to be considered.

Piotrowski (1957, p. 349) is in general agreement with other researchers. He suggests that producing anatomy responses "... may very well be an attempt at convincing others, and oneself, that one's intellect is quite active, daring, and adequate."

The interpretive significance of anatomy responses suggested by Rav (1951, p. 440) is not in agreement with the previously mentioned investigators. He thinks that anatomical associations "... require a minimum of intellectual strain." He believes that the minimum effort involved in giving anatomical associations indicates either restriction of ability or a restriction of affectivity. In concluding his clinical logic, he offers the suggestion that this restriction "... might be with the ability sphere-feeblemindedness, or in the affective sphere-anxiety."

Beck (1963) suggests possible artifacts in interpreting anatomy content. The subject's vocation may result in mere memory reproductions with little dynamic significance. In others, they are "... foci of ego values; prestige ideas, similar to name dropping. Or
the topic is an anchor of security, as I have found in many medical students." However, he does offer a generalization regarding the significance of anatomy responses. It is that "... anatomy content is a mechanism for binding clinical anxiety, usually of a deeply set ego-threatening variety. I have seen this in enough patients of a variety of clinical pictures to make the generalization with confidence."

The findings by Wagner (1961) add impetus to Beck's generalization. With a group of college students, he found that anxiety, as measured by the IPAT scale, was reflected in an interaction between aggressive movement responses and anatomy responses on the Rorschach Test. Goldstein (1954) found a significant positive relationship between scores on the Taylor Manifest Anxiety Scale and scores on Elizur's Test of hostility based on Rorschach content.

Phillips & Smith (1953, p. 123) state the following:

"Anatomy content reflects a sensitivity to, and concern with, the expression of destructive impulses. Paradoxically, those individuals who act out their destructive impulses do not develop anatomy content; the records of an assaultive group are conspicuously devoid of anatomy responses."

Using this frame of reference, Wolf (1957) compared a group of patients who have histories of acting out with a group classified as "non-actors", and found that anatomy responses were a significant factor only when hostile drive level, as derived from Rorschach
content, was taken into consideration. This author argues that with more adequate controls and more precision in defining an assaultive group, it is possible that an assaultive group will produce more anatomy responses than a nonassaultive group. Phillip & Smith believe that the reason subjects producing anatomy responses will not act out their destructive wishes is related to the fact that "fear of bodily harm" is associated with all anatomy content. Thus, this fear of bodily harm is a contraindication to acting out aggression.

However, this author reasons to a different conclusion. He believes that the fear of bodily harm is synonymous to the binding clinical anxiety suggested by Beck. In some cases, the acute anxiety is reflected by the inordinate number of anatomical associations. The inner turmoil brings the destructive wishes to the surface and overtaxes ego defenses. Consequently, in an attempt to alleviate this anxiety the individual strikes out against his environment.

Hypotheses

Clinically, this investigator and his colleagues have observed that anatomical associations are elicited with greater than average expectancy among assaultive patients. However, it was believed that this observation should be subjected to scientific validation. Thus, the following hypotheses have been formulated to determine the possibility of differentiating an assaultive group from a
nonassaultive group on the basis of anatomical associations pro-
duced on the Rorschach Test.

The hypotheses are:

1. The sum of anatomy responses on the Rorschach Test will be significantly greater for a psychotic assaultive group than for a psychotic nonassaultive group, sexually deviate group, and a group of normals.

2. Neither a psychotic nonassaultive group nor a sexually deviate group will differ significantly from a group of normals in the number of anatomy responses produced on the Rorschach Test.
METHOD

Essentially, the experimental design to test the hypotheses involved the matching of three clinical groups with a group of normals, and then determining the difference among these groups in the number of anatomy responses elicited on the Rorschach Test. The clinical groups were matched with a group of normals for sex, age, number of responses, education, and occupation. In addition, all those individuals with a full scale Wechsler IQ of less than 70 were eliminated from the study.

Subjects

Protocols of males who are, or who have been, patients at the Ionia State Hospital were used in each clinical group. Each group contained 32 protocols. The criteria for the selection of subjects into their respective groupings follow:

Assaultive psychotic group:

1. Legally, their deviant behavior has warranted the charge of either felonious assault, assault with intent to do great bodily harm, or varying degrees of murder.

2. The patient was initially committed as a mentally ill person.

Sexually deviated group:

1. These subjects were committed as sexual deviates
under Public Law 165 (1951).

2. Those patients with the charge of rape, or attempted rape were excluded. These charges are omitted to prevent any overlapping of experimental groups.

Nonassaultive psychotic group:

1. No previous assaultive acts were listed on the F.B.I. report.

2. Their crimes were against property.

3. The patient was initially committed as a mentally ill person.

The normative group:

1. These subjects were obtained from Beck's published norms (1950) that are on file at the Michael Reese Hospital in Chicago. The data were obtained on 68 male normals. The selection of the 32 normal protocols used in the study will be discussed in detail when discussing the matching procedures.

Matching Procedure

Alphabetically, the patient population, and those on convalescent status, were screened to meet the respective criteria stated above. The nonassaultive psychotic group was the first to be selected because the hospital population contained the fewest of this type of case. The first step was to obtain Rorschach records from patients who fulfilled the criteria. The next step was to consult Beck's norms to locate a comparable individual regarding sex, age, number of responses, education, and occupational status. In the event the normative group contained no suitable individual for
matching, the patient was not used in the study. If a suitable individual was located in the normative group, all but the anatomy responses were recorded. Thirty-two nonassaultive subjects were compared to thirty-two of Beck's normative group. The psychotic assaultive group was the next to be selected. After meeting their criteria for selection, thirty-two subjects of this group were matched to the other two groups. Finally, the sexually deviate group was selected on the basis of their criteria and matched with the other three groups.

**Matching Data**

Table 1 summarizes the matching data for the clinical groups and the normative group. The group mean for each individual matching variable is presented.

**TABLE 1**

<table>
<thead>
<tr>
<th>Group</th>
<th>Age</th>
<th>Responses</th>
<th>Occupation</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beck's normative group</td>
<td>30.31</td>
<td>25.53</td>
<td>2.47</td>
<td>10.34</td>
</tr>
<tr>
<td>Assaultive psychotic group</td>
<td>31.69</td>
<td>26.09</td>
<td>2.75</td>
<td>11.03</td>
</tr>
<tr>
<td>Nonassaultive psychotic group</td>
<td>29.00</td>
<td>26.23</td>
<td>2.75</td>
<td>9.91</td>
</tr>
<tr>
<td>Sexually deviate group</td>
<td>32.28</td>
<td>27.25</td>
<td>2.75</td>
<td>10.72</td>
</tr>
</tbody>
</table>
The occupational classifications were identical to those used by Beck in his normative study (1950). The classifications are as follows: Group I, Executives; Group II, Skilled; Group III, Semi-skilled; and Group IV, Unskilled. When questionable classifications occurred, the examples listed in the original study were used in making the decision.

Scoring

Examiners administering the Rorschach Test scored their protocols by the Beck scoring system. The author further subdivided the anatomy responses into bony, visceral, and x-ray classifications. The bony anatomy group included reference to any bone in the body, e.g., hip bone, pelvic region, or skeleton. The visceral anatomy group contained any internal organs, e.g., lungs, heart, and guts. A bone with flesh attached, or elaborations mentioning inner portions of the body, was placed in this classification. The x-ray category included any association in which x-ray is mentioned. A response such as an "x-ray of a skeleton" or "x-ray of a heart" remains in this category. Problems of questionable original scorings and marginally legible writing were resolved by discussion with a more experienced Rorschach worker.
RESULTS

The hypothesis that the sum of anatomy responses for the assaultive psychotic group would be significantly larger than for the other clinical groups was not supported. However, as hypothesized, no significant differences were found when comparing the sexually deviate and nonassaultive psychotic groups with the normative group.

The median test was used to determine if statistically significant differences were obtained. This statistic, although not ideally suited to this design, was the method of statistical analysis thought to be the most feasible. The predictor variable, anatomy responses, is not normally distributed and violates one of the essential assumptions necessary for the use of parametric methods. Consequently, this precluded the use of any parametric techniques and necessitated the use of nonparametric methods. Many of the nonparametric techniques recommended for related groups were not applicable, e.g., data have to be ranked, randomized, or differences measured. Fully cognizant that the use of the median test is intended for independent samples, the author decided that it was the most appropriate technique. This test is very powerful when used with related samples, and consequently, a rigorous test of the author's hypotheses.
Table 2 summarizes the result derived from the comparison of experimental groups with the normative group.

**TABLE 2**

**Comparison of Anatomy Responses for the Psychotic Assaultive, Psychotic Nonassaultive, and the Sexually Deviate Group with those of the Normative Group**

<table>
<thead>
<tr>
<th>Group</th>
<th>df</th>
<th>$X^2$</th>
<th>$P &gt; .05 = 3.84$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotic assaultive group</td>
<td>1</td>
<td>.97</td>
<td>---</td>
</tr>
<tr>
<td>Psychotic nonassaultive group</td>
<td>1</td>
<td>1.00</td>
<td>---</td>
</tr>
<tr>
<td>Sexually deviate group</td>
<td>1</td>
<td>.06</td>
<td>---</td>
</tr>
</tbody>
</table>

Further analysis was made to determine if any of the experimental groups, namely, the psychotic assaultive, psychotic non-assaultive, and the sexually deviate differ significantly from each other. No significant differences were found. Table 3 presents the statistical results obtained by the comparisons.

**TABLE 3**

**Comparison of Anatomy Responses for the Psychotic Assaultive, Psychotic Nonassaultive, and Sexually Deviate Groups with Each Other**

<table>
<thead>
<tr>
<th>Group Comparisons</th>
<th>df</th>
<th>$X^2$</th>
<th>$P &gt; .05 = 3.84$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assaultive vs. nonassaultive groups</td>
<td>1</td>
<td>.02</td>
<td>---</td>
</tr>
<tr>
<td>Assaultive vs. Sex Deviate groups</td>
<td>1</td>
<td>.00</td>
<td>---</td>
</tr>
<tr>
<td>Nonassaultive vs. Sex Deviate groups</td>
<td>1</td>
<td>.02</td>
<td>---</td>
</tr>
</tbody>
</table>
The data were plotted to determine if any significant differences were concealed by the stringency of the statistical test. In addition, it was hoped that a more appropriate point to dichotomize the data might become visible. The frequency curves for clinical groups and for the normal group showed no indication of significant differences. Figure 1 presents the results obtained by plotting how many times a particular total of anatomy responses appeared for each group.
Fig. 1

COMPARISON OF Σ ANATOMY RESPONSES FOR EACH GROUP

BECK'S NORMATIVE GROUP
PSYCHOTIC ASSAULTIVE GROUP
PSYCHOTIC NONASSAULTIVE GROUP
SEXUALLY DEVIATE GROUP
The subgroupings of anatomy were not presented because of lack of significance found with the sum of anatomy. Furthermore, the number of subjects in each group giving responses in a particular anatomy subgrouping was too small for meaningful analysis.
DISCUSSION

The clinical observation that anatomical associations appear more frequently in an assaultive group was not supported by this research. It is possible that over a period of time the records containing several anatomy responses may have unduly influenced the observers. In other words, observations were biased by selective recall of past clinical experience.

The findings highlight the methodological problems in conducting research on a single variable of a multivariant instrument. The use of anatomical associations as the predictor variable reflected the weakness of overgeneralisation. Anatomy responses can not be given a single global meaning. The exact interpretation of anatomy responses is still an open question. Rorschach workers should take heed and re-evaluate their generalised interpretations, e.g., aggressive urges, underlying psychosis, severity of psychopathology and assaultive tendencies. the multivariant nature of the Rorschach makes it necessary to scrutinise each response and consider it in relation to other variables.

The clinical groups used in this study were accessible to the author because of his employment at the Ionia State Hospital. It is the author’s contention that there is overlapping of the psychotic
populations used in this research and that of a prison population. The similarity does not become apparent until one considers the patient population more closely. All patients have come into conflict with the law as a result of their antisocial behavior. Since their behavior has been of an antisocial nature, legal disposition of the case must be made. The most frequent solution is a prison sentence. However, in an effort to avoid the sentence, some individuals seek commitment to the hospital as a mentally ill person. A lack of uniformity in the interpretation of psychosis, a society asking for punishment for their illegal acts, and the prosecutor's wish to dispose of the case, all aid to eventuate commitment to the Ionia State Hospital. Thus, it is felt that similar results would be obtained when using a prison population.

The interaction of ego defenses and drives produces a unique human personality too complex to differentiate an assaultive from a nonassaultive group simply by anatomy content. However, the results do suggest areas for future investigation. A possible fruitful investigation would attempt to determine the personalized meaning the subject has projected by eliciting anatomical associations to the Rorschach Test figures. To accomplish this, each subject's social history would have to be investigated.

For future research, efforts to determine the personalized
meaning of anatomy responses may be fertile experimental ground. The possible investigation of the anxiety coupled with anatomy responses is another. Such investigation would be a contribution to the study of ego defense mechanisms and the understanding of personality dynamics.
SUMMARY

The objective of this experiment was to determine the possibility of predicting assaultive behavior by using anatomy responses produced on the Rorschach Test. It was hypothesized that psychotic assaultive subjects would produce more anatomical associations than a psychotic nonassaultive, a sexually deviate, and a normal group.

Three groups of Rorschach protocols from male patients at the Ionia State Hospital were used. The three groups were as follow: psychotic assaultive, psychotic nonassaultive, and sexually deviate. Each group contained thirty-two subjects who were matched with subjects from Beck's normative sample. All groups were matched for sex, education, occupation, age, and number of responses.

No significant differences were obtained and the hypothesis was not supported. The clinical observation initiating this study was thought to be biased by a selective recall of records containing many anatomical associations.

The author examined three methodological points related to his experimental design. One, overgeneralizations are made regarding anatomical associations. Two, a Rorschach variable must
be scrutinized and considered in relation to other variables. And third, personality is too complex a phenomenon to differentiate an assaultive group from a nonassaultive group solely on the basis of anatomy responses.

Further exploration into the relationship between anxiety and anatomical associations may shed light on the use of defense mechanisms and how they manage to keep assaultive wishes under control. Such investigation would not only contribute to the study of projective techniques, but also aid in the understanding of personality dynamics.
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