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The Influence of Examiner Personality on the Number of Rorschach Responses.

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THE INFLUENCE OF EXAMINER PERSONALITY ON THE NUMBER
OF RORSCHACH RESPONSES

by
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. REVIEW OF RELATED LITERATURE</td>
<td>3</td>
</tr>
<tr>
<td>III. PROCEDURE</td>
<td>24</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>27</td>
</tr>
<tr>
<td>V. DISCUSSION</td>
<td>32</td>
</tr>
<tr>
<td>VI. SUMMARY AND CONCLUSIONS</td>
<td>35</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>37</td>
</tr>
<tr>
<td>APPENDIX I</td>
<td>42</td>
</tr>
<tr>
<td>APPENDIX II</td>
<td>43</td>
</tr>
<tr>
<td>APPENDIX III</td>
<td>44</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>DISTRIBUTION STATISTICS ON THE NUMBER OF RESPONSES OBTAINED BY TWENTY EXAMINERS ON THE RORSCHACH TEST</td>
<td>28</td>
</tr>
<tr>
<td>2.</td>
<td>THE DIFFERENCES BETWEEN THE MEAN OF TEN Es ABOVE THE MEDIAN R AND OF TEN Es BELOW THE MEDIAN ON EACH OF THE &quot;16 P-F&quot; FACTORS</td>
<td>30</td>
</tr>
<tr>
<td>3.</td>
<td>THE DIFFERENCES BETWEEN THE MEAN OF THE Es IN THE UPPER AND LOWER FOURTH OF THE E DISTRIBUTION ON EACH OF THE &quot;16 P-F&quot; FACTORS (N = 5)</td>
<td>31</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

A projective method for the study of personality involves

...the presentation of a stimulus-situation designed or chosen
because it will mean to the subject, not what the experimenter
has arbitrarily decided it should mean, but rather whatever it
must mean to the personality who gives it, or imposes upon it,
its private, idiosyncratic meaning and organization. The sub-
ject then will respond to his meaning of the presented stimulus-
situation by some form of action and feeling that is expressive
of his personality...(Frank, 1939, p. 403).

This assumption was uncritically accepted in early projective studies.

A projective test was as single-minded as the X-ray (Frank, 1939)
revealing information only about the patient without any emphasis as to
the importance of the examiner-patient relationship in determining the
responses elicited.

Does a subject, in fact, satisfy this assumption underlying all
projective techniques (Anderson and Anderson, 1956) that his concepts
reveal his consistent way of organizing experience, as measured by the
ideas and feelings he projects into "meaningful" or ambiguous stimuli?
Is a subject reacting only to the "unstructured" or "semi-structured"
ink blots on the Rorschach test, or is he reacting to the total percep-
tual and social field, which includes the person who administered the
test, the method of administration, or the situation in which it was
used (Lord, 1950). In the words of Cronbach: "test research has been
dominated by the Galtonian view that the test is a sample of the subject's responses to a standardized nonpersonal stimulus" (1949, p. 175).

However, with growing sophistication regarding the nature of psychological testing a number of writers have explicitly commented on the influence in projective testing of factors other than S's personality. One of the first to note the subjective factors in Rorschach testing was Schactel (1945) who described four common elements in the Rorschach situation: the relationship of the E and S; the assignment of the task by the E to the S; the E's need to interpret the S's behavior; and the specific qualities of the task, such as the ambiguity or the lack of familiarity with the stimuli. Miller (1953) and Luchins (1947) have also indicated the subtle ways in which subjective forces may influence the course of a projective testing situation.

Klopfer et al. (1954) accurately state that "any holistic interpretative procedure should take account of the E-S relationship as just as much a part of the total context as the stimulus material itself" (p. 349). However, the influence of this aspect of the test situation has been inadequately explored. It is still not known in detail the degree to which the personality of E will influence the test performance. Hence, it is the purpose of this thesis to investigate the influence of E personality variable, as measured by the Sixteen Personality Factor Questionnaire, on the number of the Rorschach responses (R) that a group of subjects give to a group of examiners.
CHAPTER II

REVIEW OF RELATED LITERATURE

It is the purpose of this survey to review the evidence regarding situational and interpersonal influences in projective testing. Experiments dealing with the effects of these factors on interviewing or intelligence testing and those studies concerning the effects of psychotherapy, psychosurgery, and individual vs. group tests will not be reviewed, since these issues are considered to be part of essentially different problems. Moreover, some of the following studies are indirectly related to the present one and are only used to illustrate the problem. Four categories will be used to present these studies: method of administration, the testing situation, examiner influence, and subject influence.

The Influence of Method of Administration

The ability of projective tests to withstand attempts by Ss to disguise or alter their "real" responses has been investigated several times. The usual procedure in these studies is to test the same Ss several times under varying instructions; comparisons are then made between the test responses produced under standard instructions with those yielded by experimental instructions.

Fosberg (1938; 1941; 1943) has reported on the process of trying to produce a good or bad impression on the Rorschach. In one study (Fosberg, 1938) a husband and wife were each administered the Rorschach
under four sets of instructions. Despite the instructions to create a
given impression, it was concluded that the Ss were unable to avoid
revealing basic aspects of their personality, the psychograms on the four
examinations remaining essentially the same. In a later study (Fosberg,
1941), the Rorschach was given four times under different instructions
to 25 male and 25 female Ss. A special experimental group of 16 Ss took
the fourth examination under instructions to look for particular deter-
minants. When Fosberg (1943) compared group means produced under the
different instructions he found few consistent differences. There was
little change in the test as a whole, only the content of the responses
showing marked changes. One reason for the failure of these instructions
to produce differences in responses is that each S defined for himself
the manner in which to deceive the E, so that six Ss increased their
responses in order to make a good impression while four increased their
responses in order to make a poor impression. While there was no con-
sistency among all Ss on how to create an artificial image for the E,
most Ss felt that they could falsify their reactions by adopting a parti-
cular set. Of special importance to this review is the fact that in
trying to make a bad impression several Ss seemed to concentrate on the
E, rather than the test; three Ss annoyed the E, two acted stubborn and
ornery, two proceeded very slowly, and four paid little attention
(Fosberg, 1943).

Fosberg’s studies were essentially repeated by Carp and Shavzin
(1950) who also found that taking the Rorschach under instructions to
make a good impression (that is “you are in a state hospital and the
results on this test may help get you out") and under instructions to make a bad impression (that is "you are to be drafted for the Army and the results on this test may help keep you out") produce no significant group differences (except for the z score which was significant at the .05 level). "This does not mean, however, that no changes were produced. The data clearly showed the differences. But the direction taken was so diverse, among the individual Ss, that they were balanced out in the analysis" (Carp and Shavzin, 1950, p. 232). The authors directly challenged Fosberg's conclusions that the Rorschach could not be manipulated by the Ss. "On the contrary, this study shows that there are some subjects who can manipulate their responses, who can vary their personality picture as reflected by the Rorschach, under instructions to make 'good' or 'bad' impressions" (Carp and Shavzin, 1950, p. 233).

Weisskopf and Dieppa (1951) administered three cards of the TAT to hospitalized psychoneurotic veterans, giving the standard instructions in one administration, asking the Ss to give the best possible impression on another administration and the worst possible impression on the third administration. Of the nine dimensions rated by judges, five showed significant differences as a function of the instructions. When the Ss tried to give their worst impression, they were rated as less well-adjusted, more hostile, less willing to conform, and more spontaneous. Wallon and Webb (1957) asked naval aviation cadets to take the Rosenzweig P-F Test and a Sentence Completion Test under several variations of instructions and test structure. One group took the P-F Test in a multiple choice form, another took it in a standard form, while a third
group was told in taking the test to try to make the best impression. It was concluded that as the test became less ambiguous, the results more closely resembled responses produced under instructions to fake.

In the process of studying suggestibility, Coffin (1941) demonstrated how S's set may influence his responses to the Rorschach test. The Ss were first asked to read a fictitious article by a "Harvard professor" describing how professional men usually saw whole responses, while business men saw animals, skilled laborers saw inanimate objects and WPA employees saw details. A second group of Ss read the article that now described professional men as seeing details, business men inanimate objects, etc. Following the reading of this article each S was administered six Rorschach cards. The results clearly showed the influence of the suggestion on the responses, each group tending to respond in the same direction as the socially acceptable norms. "Apparently the suggestion sets up a determining tendency operating upon the observer's perceptual and imaginal processes. This acted to direct the 'search'" (Coffin, 1941, p. 62).

In a better controlled study Abramson (1951) equated two groups of college students on the basis of W, D, and Dd responses to the first administration of the Rorschach. One group of Ss was then told that successful business and professional men saw whole responses, while the second group was instructed that these men saw detail responses. As a consequence of the difference in instructions, the two groups differed significantly on the second Rorschach test not only in the number of whole and detail responses but on several other determinants (F%, FM,
m, Hd, Ad) as well, although there were no significant differences between groups of the first test. Evidently establishing a set for area will also affect those determinants dependent upon the area of the blot.

Hutt, Gibby, Milton, and Pottharst (1950) and Gibby (1951) investigated the effects of instructing Ss to pay particular attention to specific aspects of the Rorschach blots. In each study various parts of the blots were emphasized to the Ss after the standard administration of the test, but prior to the experimental administrations. A study of test-retest reliability of the Rorschach under these conditions showed certain determinants to be more stable and less resistant to change than others. "What appears to be crucial is how the individual perceives the total test situation. If we do not know this, we are likely to make serious errors in interpretation" (Hutt et al., 1950, p. 185).

The most impressive evidence regarding the effects of telling the S the purpose of the testing comes from the study of Henry and Rotter (1956), who simply told their experimental group of female undergraduates what most college students have already presumably learned about the Rorschach test from television, the movies, and Life magazine: "This is a test to discover serious emotional disturbances." It was found that the experimental group gave fewer responses (at the .01 level), more good form responses (.05 level), more popular responses (.05 level) and more animal responses (.05 level) than a control group given a standard administration. It was evident that making explicit the purpose of the test produced more constriction and more attempts to be safe than leaving
the purpose unstated.

A study by Calden and Cohen (1953) investigated the influence of both ego involvement and instructions regarding the nature of the Rorschach test. Half their senior high school Ss were given ego-involving instructions and half were given neutral instructions; one-third of the Ss were told that the Rorschach tested intelligence, another third that it tested "nervousness," and the last group that it measured imagination. An analysis of variance computed for 27 selected variables showed 19 differences significant at the .05 level. In general, the resulting personality pattern that emerged from the intelligence test instructions resembled the same constricted, safe picture found by Henry and Rotter (1956), form and animal responses increasing, movement responses decreasing. "Needless to say, predictions based on 'blind' interpretations of the Rorschach protocol, without knowledge of the testing situation of the S's reactions to the testing, are so much more fallible when viewed in the light of the results of this study" (Calden & Cohen, 1953, pp. 308-309).

The Influence of the Testing Situation

The designs for the studies investigating the effects of varying testing conditions take several forms. The most rigorous of these utilizes a control group that has been given two administrations of the test to contrast with the experimental group which had experienced the special conditions between the first and second testing. If the projective test permits, some investigators prefer to counterbalance the order of
presentation of the particular cards used, necessitating at least two experimental groups and two control groups. Another frequent design does not utilize a control group, the only comparison made being that of the first administration of the test with the second administration, with all differences between administrations assumed to be a function of the intervening conditions. A third procedure consists of administering a single test to groups known to differ on a particular dimension; all differences in test results are then attributed to the central, identifiable difference between groups.

The most careful, systematic effort to induce stress was that of Lindzey (1950a; 1950b), who frustrated his experimental Ss by subjecting them to 10-12 hours of food deprivation, inducing them to drink large quantities of water, and then preventing them from urinating for approximately three hours, taking a blood sample in a painful way with a spring lancet, and by forcing them to fail in a group situation. As a consequence of these conditions the Rosensweig Picture Frustration Test showed a significant increase in extra-punitive responses (Lindzey, 1950b). Of 12 predictions regarding changes in the TAT, 11 were in the expected direction, with 5 hypotheses confirmed at the .05 level of confidence or better (Lindzey & Herman, 1955). The effects of stress on the Rosensweig P-F Test were also studied by French (1950) who gave students in a social psychology class erroneous grades on an examination. Half the students who earned an A or B were given C or D, while half those earning a C or D were given an A or B. On the P-F Test given immediately after the grades were returned the good students given the poor grades
(the stress group) did not differ from the good students who were assigned their correct grades. However, the poor students given the erroneously high grades showed fewer intropunitive ego-defensive responses than the poor students given correct grades.

Eichler (1951) used an elaborate device resembling an electric chair to seat his Ss while taking the Rorschach. They were made to wear a helmet which looked as if it could conduct electricity and were told that while taking the test they would be given shock: "the longer the time interval that elapses without the receipt of shock the more intense the next shock will be." On the basis of an administration of the Behm-Rorschach Test, the experimental group was matched on five variables with a control group that took the second Rorschach under standard conditions. Judges who made a blind global rating of the Rorschach protocols found a significant difference in anxiety between the two groups. On 15 anxiety indicators, however, they found that only 4 reflected a significant difference between groups while 3 additional variables did not reach statistical significance but were in the predicted directions.

Less dramatic forms of frustration seem also to be effective in demonstrating how projective devices may reflect pretest conditions. Crandall's (1951) experimental Ss took tests of physical skills between administrations of the TAT and were informed that they had not met the "norm." A control group rested between test administrations. As a result of the failure situation the experimental Ss' expectation for punishment as revealed in the TAT increased significantly.

Three studies did not impose stress experimentally, but utilized
Ss in "natural" stress conditions. Klatskin (1952) gave the Rorschach test to one group of patients the day before they were to receive gynecological surgery and to another group of patients the day before they were to be discharged from the obstetrical service. The hospital patients were matched on age and intelligence with a group of clerks. Of the 65 comparisons made between groups, 21 significant differences were found, generally indicating greater constriction and more self preoccupation in the hospitalized Ss. In another study which utilized hospitalized Ss, Meyer, Brown, and Levine (1955) found that H-T-P drawings secured before surgery indicated far more regression than was apparent either clinically or in the postoperative drawings. "The contrast between the preoperative and postoperative drawings were often so arresting as to cast doubt upon their being the product of the same individual" (Meyer et al., 1955, p. 431). Abel (1953), however, found conflicting patterns in human figure drawings in patients operated on for correction of facial disfigurement. Some patients made great changes in drawings as a result of corrective surgery, others made little change, while still a third group made dramatic changes in drawings even though no surgery had been performed.

Several experiments have investigated the influence of perceptual training upon Rorschach scores. Knopf (1954) provided pre-Rorschach perceptual training in finding animal or animal parts for one group of Ss while the second group watched a film on the nature of color. He concluded that the overall picture of the personality remained basically unchanged. Kurtz and Riggs (1954) similarly found no differences in
group Rorschach scores in Ss who had first been exposed to a visual set to perceive animals. "So far as this study is concerned, Rorschach workers remain secure in the assumption that implicit peripheral sets will not influence test results to any appreciable extent" (Kurtz and Riggs, 1954, p. 469). Nor did Norman, Leverant, and Redlo (1952) find that Rorschach scores were altered by having one group of Ss first look at colored food ads while another group looked at pictures of people in motion. Evidence that perceptual training can influence Rorschach performance has been reported by Keyes (1954) and Leventhal (1956). Subjects trained on stimuli similar to the Street Gestalt pictures produced an increase in the number of whole responses on the group Rorschach (Keyes, 1954). Training on the Gottschaldt figures before an administration of the group Rorschach resulted in lower W and Z scores (Leventhal, 1956).

The relationship of experimentally aroused needs on projective test responses has also been investigated. When the need for achievement was induced by means of ego-involving instructions, stories of college men increased in achievement, imagery themes and themes of instrumental acts and attitudes related to achievement (McClelland, Clark, Roby, & Atkinson, 1949). The stories told by high school boys to pictures of male figures also showed an increased number of themes of special achievement arousing conditions. These achievement arousing conditions, however, were not effective in increasing achievement themes of either high school girls or college girls (Veroft, Wilcox, & Atkinson, 1953).
The Influence of the Examiner

While the evidence regarding situational factors in projective testing has been compiled over the years, the studies dealing with interpersonal influences is of rather recent origin. Guilford's study (1947) was the first in this area and it was three years before the next experiments were reported. The relative neglect of this problem was not entirely due to the lack of awareness of its importance, since McFarlene wrote that "interpretation in the hands of the clinically inexperienced, the doctrinaire, or the methodologically uninformed easily degenerates into nothing more but one more predictive tool to wit, one which discloses the organizing dynamics of the interpreter rather than the organizing dynamics of the research subject" (1942, p. 405), and Joel warned that "even if it were possible for the examiner always actually to feel the way he pretends he does, we should not forget that the subject reacts not only to the examiner's real attitude, but also to what he thinks the examiner's attitude is" (1942, p. 480). Probably the greatest deterrents to the exploration of this question were the facts that the notion of E influence struck at the heart of the X-ray concept of projective tests and the extreme complexity and subtlety of the interpersonal testing situation, so aptly discussed by Schafer (1954), made experimentation difficult.

The first studies tested the hypothesis that Es would differ in the responses they elicited from Ss by analyzing the test records secured from the files of a clinic. As interest turned to determining which characteristics of Es were related to differences in Ss' responses, such
physical attributes of Es as skin, color, size, and sex were investigated, as well as personality variables revealed in psychological tests, generally the Rorschach. The interaction of E and S has been studied on several occasions, either by controlling the warm-cold dimension or by contrasting tests taken with E present with those taken with E absent.

A completely different approach to this problem is through the use of hypnosis. While no study used hypnosis primarily to investigate the testing relationship, most of the experiments using hypnosis do report that S's test behavior varied with hypnotic suggestion. Thus far only two studies (Gross, 1959; Wickes, 1956) attempted to establish operant conditioning of S's verbal behavior, but this method seems so promising that undoubtedly it will become more widely used in investigating examiner influences.

The most immediately apparent characteristics of the E are his skin, color, sex, and body build. Each of the attributes has been investigated for possible influence on the S's responses. Three studies related the sex of E to sexual responses on the Rorschach test. Alden and Benton (1951) selected 100 Rorschach records from the files of a VA hospital; all test Ss were males, 50 of them tested by a female E and 50 of them tested by a male. There were no significant differences, either overt or covert sexual responses considered, that could be attributed to the sex of E. Exactly contradictory results were reported by Curtis and Wolf (1951). Again using the Rorschach record of male veterans, comparisons were made of the overt and covert sexual responses given by 386, Ss to the three female and seven male Es. Statistically,
significant differences were obtained. Rabin et al. (1954) found that sometimes the sex of E makes a difference and sometimes it does not. The Ss who had waited for the Rorschach examination in a room decorated with anatomical charts did not differ in the number of anatomical responses given to the male and female Es, but those male Ss who had waited in a room decorated with pictures of nude women give significantly more sexual responses to the male E than to the female.

Luft (1953) varied the interaction between E and S by acting warm and friendly to some Ss and cold and blunt to others. The cold interaction consisted of asking the Ss their social security number and draft status and by giving a short quiz on current events (e.g., "Which horse won the Kentucky Derby?") before administering 10 homemade ink blots. When the Ss were asked which ink blots they liked and which they disliked, the group treated in the warm fashion indicated that they like a mean of 7.6 blots, while the cold Ss like only a mean of 3.1 blots, a difference significant beyond the .001 level. Lord (1950) used three styles of administering the Rorschach--neutral, positive, and negative--and three female Es. In the positive interaction, E was instructed to look at S with a smile and to be warm and charming; the negative interaction called for E to assume the role of a harsh, demanding, authoritative figure, deliberately unconcerned about S. Each S took the Rorschach three times with the order of E and administration counterbalanced. As a result of the different methods of interaction, the protocols elicited from the warm administration produced more responses, more evidence of intellectual and creative imagination, less indication of stereotyped
thinking and increased evidence of greater ease in interpersonal relations. In the cold administration, responses indicating imaginative, creative thinking were reduced, there appeared to be a withdrawal from emotional stimuli and there was a rise in self-questioning feelings.

Two studies investigated the extent to which S's associations to ink blots could be determined by the E's behavior. Wickes (1956) used 30 homemade ink blots, two Es, and 36 undergraduate Ss divided into two experimental groups and one control group. In one experimental group, the first 15 cards were given in the standard manner; with card 16 the E said, "fine," to the first movement response, "good" to the second movement response, and "all right" to the third movement response, making these comments in regular sequence to the end of the testing. In the second experimental group, the first 15 cards were given in standard fashion, but with card 16 the E made various postural and gestural changes, nodding his head three times to the first movement response, smiling on the next movement response, and leaning forward in the chair after the third movement response, repeating this sequence to the end of the testing. When responses on the first 15 and second 15 cards were compared for all groups, it was found that the experimental group given verbal reinforcement made a significant increase (.025 level) in movement responses on the second half of the test, the experimental group given postural reinforcement made a significant increase (.005 level) in movement in their studies and each concluded that the psychologists did not exert any significant influence on the Ss' responses.

Gibby (1952) attempted to control some of the sources of variation
in responding to the Rorschach. He had 9 Es use a standardized inquiry in testing 135 Ss. Despite this, significant differences in responses were found for 6 of 11 determinants investigated. Gibby, Miller, and Walker (1953) secured a homogeneous group of patients whose Rorschach records could be analyzed for E influence. All 12 Es whose records were analyzed had a minimum of two years experience with Beck's Rorschach method. On the nine absolute scores which were investigated, three were significant at the .05 level or better.

Robinson and Cohen (1951) examined the case reports prepared by three psychological interns. The last 30 reports for each of the three interns were examined for the variables of dependence, independence, aggression and abasement. When the incidence of these variables in the case reports was compared for each of the 3 psychologists, 6 of the 12 comparisons were significant at the .05 level. When components of these variables were considered 12 of the 24 comparisons were significant at the .05 level.

Hammer and Piotrowski (1953) asked three staff psychologists and three interns to rate 400 H-T-P drawings on a 3 point scale of aggression. The clinicians were themselves rated by an investigator on the degree of aggression and hostility which they manifested in dealing with patients and staff members. In addition, the clinicians also took the Szondi test which was scored for degree of hostile and aggressive impulses. The rank order correlation for the degree of hostility the clinicians saw in the H-T-P productions and the evaluation made of their interpersonal hostility was found to be .94; the rating of the clinicians' Szondi tests also
yielded a rank order correlation of .94 with their evaluations of the hostility in the H-T-P. The authors concluded that "just as a subject's performance on a projective technique is a function of his personality, his needs, conflicts, desires and past experiences, so too, although to a lesser degree, is the interpretation of a projective protocol influenced by the personality pattern of the interpreter" (Hammer & Piotrowski, 1953, pp. 214-215).

Gross (1959) verbally reinforced ("good") one group of Ss for each human response on the Rorschach while for a second group he nodded his head once following each human response. Both the verbally reinforced group and the nonverbally reinforced group produced more human responses than a control group.

In reporting the effect of the E as a person with no assessment of E personality, Guilford and Lacey (1947) concluded that some Es elicited more responses from their Ss in administering the Rorschach test than other Es. They reported critical ratios for differences among Es with twelve being significant at the .001 level, and three more at the .05 level—a total number that would appear to be well above the expectation on the assumption of homogeneity of Es. Baughman (1951) selected 633 protocols secured by 15 Es from the files of a veterans' out-patient clinic, and found 12 of 22 scoring categories differing significantly at the .001 level, with four additional differences significant at the .05 level. Unfortunately, the protocols were not scored by the investigator, so that differences found may have resulted from the psychologists' procedures in scoring, rather than from their influence on S. Both
Wickes (1956) and Bernstein (1956) used two Es in their studies and each concluded that the psychologists did not exert any significant influence on the Ss' responses.

Miller, Sanders, and Cleveland (1950) evaluated the TAT and MMPI of nine Es and compared them with the Rorschach responses they had elicited. An analysis of E variance showed 22 of 37 selected Rorschach variables significant at .05 level or better. Meyer (1960) obtained 375 college students' protocols by 25 examiners. An analysis of variance and covariance of the Rorschach response proper and a content analysis by the Elizur Content Analysis Technique for anxiety and hostility showed "pronounced E influence in R productivity" and that "regardless of productivity examiners tend to influence greatly the categories W, D, Dd, FM, anxiety, hostility, and anxiety-hostility."

The Influence of the Subject

While there is wide theoretical agreement that each part in the testing situation exerts an influence on the other, the experimental evidence is limited almost entirely to the effect E has on S. Perhaps the chief reason for the failure to investigate the manner in which S can influence the psychologist is the lack of traditional experimental procedures that can afford control of the S's behavior while the E's behavior is allowed to vary. The one study in this area (Masling, 1957) controlled S's behavior by using attractive female accomplices who posed as test Ss, acting warm or cold to E. The dependent variable was the interpretation placed on sentence completion protocols by eight graduate
student Es. It was found that when S acted warm to E her protocol was interpreted more favorably (i.e., she was seen in better mental health) than when she acted cold. In addition, the results indicated that when E saw two Ss, one of whom was cold and the other warm, the protocol of the warm S was interpreted more favorably than that of the cold S.

**Adequacy of Experimental Procedures**

The studies presented in this paper have been reviewed with an emphasis on content rather than on the adequacy of experimental design. It might be worthwhile to examine more closely the more commonly found limitations in design:

(1) Most of the studies reviewed here did not extensively sample the E population. As Hammond (1954) had indicated, representative design demands that both E and S populations be adequately sampled if generalizations are to be made to larger groups of S and E. Most studies cited here, however, utilized only one E, with Baughman (1951) using 15 Es, and Meyer (1960) using as many as 25. The general results of the work on E differences makes clear how tenuous it is to assume that one E is drawn from the same population as any other E.

(2) Those studies which investigated the influence of E differences by utilizing a random sample of cases found in the files of a clinic, make the assumption as Levy (1956) has indicated, that the cases were originally assigned on a random basis. This assumption may not always be valid, due to differences in E schedules, interests, and competence. As a result, differences in test records may be in part a function of
uncontrolled bias in the selection of Ss.

(3) A frequent method of assessing E personality has been to ask the E to take a psychological test. As the results of this review make quite clear, the orientation S has toward the test considerably influences his responses. Few graduate students in psychology are naive regarding the more common projective tests, even if they have never seen them before. The meaning of a Rorschach test taken by a graduate student, therefore, is unclear and cannot be easily related to differences in Ss' responses.

(4) Most investigations of susceptibility of Ss' responses to situational influence have been conducted empirically, with no prior attempt made to predict where differences would be found. Research on the Rorschach has been particularly culpable in this regard. Since the Rorschach is still primarily an empirically, rather than theoretically, based instrument, most investigators have attempted to determine only if differences would occur between experimental and control groups, but, on finding differences, have been unable to interpret their meaning. As a result of this approach, almost every Rorschach score has at one time or another been found to be a function of some experimental variable: Z, W, W%, Ds, D, Dd%, F-, F%, FM, m, M, CF, C, Y, Y%, A, A%, P, R, reaction time and experience balance have all been reported to change as a result of experimental conditions.

(5) Many of the Rorschach studies appearing before Cronbach's (1949) critique of Rorschach research did not control for the number of responses, but assumed that all differences in determinants could be
attributed to the experimental variable. To a large extent investigators now attempt to partial out differences in the number of responses, but on occasional study will still disregard this factor. While most of the other statistical errors Cronbach discussed occur far less frequently in later research, inflation of probability levels continues to be a major source of error.

Despite these flaws in design the studies here present strong evidence of situational and interpersonal influences in projective testing. It is important to note, however, that the projective response did not change with any and all conditions imposed by the E. There was conflicting evidence regarding the importance of such physical differences among Es as skin color, sex, and size. What appeared to be the crucial element was the extent to which S's attitude toward the total testing situation was influenced by the experimental conditions.

There is considerable evidence that Ss in an unstructured situation utilize all available cue to complete their assigned task. The S in the projective test setting will not only use those cues furnished by the ink blot or picture, but also those supplied by his feelings about the examiner, those furnished by his needs, attitudes and fears, those implied in the instructions, the room, and previous knowledge of the test, and those cues supplied consciously and unconsciously by E. When E faces the ambiguous situation of supplying meaning to a series of isolated, discrete responses, he will not only rely on S's responses, but also on those cues furnished by his training and theoretical orientation, his own needs and expectations, his feelings about S and the constructions
he places on S's test behavior and attitudes. In short, these studies demonstrate as we should expect, considering our knowledge of behaving in ambiguous settings.
CHAPTER III

PROCEDURE

The Air Force demonstration (Guilford, 1947) coupled with the recent results of an unpublished thesis (Meyer, 1960) and the numerous studies cited in the preceding review indicate that $R$ varies significantly from examiner to examiner. Hence, it is appropriate to ask what $E$ personality variable(s) contribute to the significant differences in $R$ productivity. Investigators thus far have attempted to relate specific $E$ personality variables such as anxiety, hostility, and aggression to Rorschach responses, and in some cases as Masling (1960) points out, have been correct. But there is also the alternate possibility that some other, unconsidered, personality variable could have been operating at the same time and be as equally important. This suggests that perhaps a fruitful approach to the problem of $E$ influence would be to take cognizance of $E$ personality as manifested by a personality questionnaire, and discover what other personality variables may be affecting $R$ productivity.

The personality questionnaire employed in the present study to assess the $E$ variables was the revised Sixteen Factor Personality Factor Questionnaire ("16 P-F"). The chief advantage of the "16 P-F" is that it is one of a very few questionnaires that attempts to cover all the kinds of individual differences of personality found in common speech and psychological literature. "It is at present unique in (a) having
every item possessed of a demonstrated saturation with respect to each of the factors which it sets out to measure, and, (b) having proof that each of the questionnaire factors corresponds to a primary personality factor found elsewhere, that is, in real life behavior" (Cattell et al., 1957, p. 2). Form A contains 184 items with each factor being represented by either 10 or 13 items. One factor is general intelligence and the remaining 15 are dimensions of personality which the authors claim to be independent of intelligence and of one another (Cattell et al., 1957). They are listed in Appendix I.

In the present study, 200 protocols secured by 20 Es were examined. A volunteer selection list representing undergraduate students, attending school full or part time, male or female, was obtained by the graduate professor of the practicum course in projective techniques. Each student enrolled in the aforementioned course was assigned ten (10) Ss and asked to submit their protocols as part of the course requirements.

The Es, 15 males and 5 females, were graduate students enrolled in the practicum course in projective methods. Only the protocols of those Es who completed the course requirements were included in this study. The Es were individually tested and assessed by the revised Sixteen Factor Personality Factor Questionnaire, form A.

1R. W. Kelly, "College Students as Volunteer Subjects," Unpublished Master's Thesis (Loyola University, Chicago, 1959); this author reported using the MMPI as a criterion for discrimination and that there was no significant difference on the mean score between volunteer and non-volunteer students (N = 28).
The Rorschach protocols of each examiner were inspected for the incidence of R. They are listed in Table 1. Thereafter, the Es were divided about the median R into two groups of ten and their respective performance on each of the "16 P-F" factors was determined. The differences between the mean (McNemar, 1957, p. 109) of each group on each of the "16 P-F" factors is given in Table 2. The same procedure was followed when working with the upper and lower levels of the E distribution, that is, Es at the upper and lower fourth of the distribution.
CHAPTER IV

RESULTS

The results indicate that the personality variables measured by the "16 P-F" do not in this case appear to contribute in any substantial way to the R differences. The evidence for this is presented in Tables 1, 2, and 3.

Table 1 lists the data on the number of responses obtained by the 20 Es (Appendix II lists the data on the individual Rorschach test protocols obtained by the 20 Es). It may be observed that the means and medians differ much more for examiners that have high R than for those that have a low R. This stems from the obvious fact that the degree of positive skewness increases as R increases. The Es with high R means are the Es who have a certain number of subjects showing high response values (Appendix II). Whatever the characteristic of E accounting for differences in R may be, their characteristics do not necessarily operate in each and every testing session.

It appears from Table 1 and from the research on examiner influence that one must account for those E factor(s) that "cause" a difference in R productivity. However, Tables 2 and 3 do not suggest what these factors might be when E personality variables of the "16 P-F" are used. It seems, therefore, that there are other E personality features, whether
Table 1

Distribution Statistics on the Number of Responses Obtained
by Twenty Examiners on the Rorschach Test

<table>
<thead>
<tr>
<th>Es</th>
<th>Total (R)</th>
<th>M</th>
<th>Mdn.</th>
<th>S.D.</th>
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<tbody>
<tr>
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<td>444</td>
<td>44</td>
<td>33.5</td>
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<tr>
<td>2</td>
<td>376</td>
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<td>22.0</td>
<td>30.00</td>
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<tr>
<td>3</td>
<td>348</td>
<td>35</td>
<td>32.5</td>
<td>20.23</td>
</tr>
<tr>
<td>4</td>
<td>307</td>
<td>31</td>
<td>25.0</td>
<td>15.49</td>
</tr>
<tr>
<td>5</td>
<td>303</td>
<td>30</td>
<td>22.0</td>
<td>26.60</td>
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<td>6</td>
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<tr>
<td>7</td>
<td>284</td>
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<td>21.33</td>
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<td>14</td>
<td>225</td>
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<td>7.94</td>
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<tr>
<td>20</td>
<td>168</td>
<td>17</td>
<td>14.0</td>
<td>8.78</td>
</tr>
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</table>

Group Mean Responses 26.30
Group Median Responses 25.00
Group Standard Deviation 6.66
deeply central or peripheral in the dynamics of E, that account for the differences in R productivity. These will be discussed in the subsequent section.

Table 2 indicates that only the mean differences on factor "C" were significant at the .10 level. Table 3 points out that even when examiners at the extremes of the E distribution (i.e., E in the upper and lower quarters) are compared, none of the factors are found to be significant. When the mean differences are compared only factor "Q₄" was significant at the .10 level. However, the small N limits the interpretation of this result (McNemar, 1957, pp.: 113-114). Thus the supposition is offered that the dimensions or factors measured by the "16 P-F" are not apparently related to differences in R.
Table 2

The Differences Between the Mean of Ten Es above the Median P and of Ten Es below the Median on each of the "16 P-F" Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Es above Mdn. Group 1</th>
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<th>t</th>
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<tr>
<td></td>
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<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>A</td>
<td>9.4</td>
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<td>9.6</td>
</tr>
<tr>
<td>B</td>
<td>9.5</td>
<td>2.2</td>
<td>9.8</td>
</tr>
<tr>
<td>C</td>
<td>15.7</td>
<td>3.1</td>
<td>17.1</td>
</tr>
<tr>
<td>D</td>
<td>14.6</td>
<td>2.8</td>
<td>15.7</td>
</tr>
<tr>
<td>E</td>
<td>13.3</td>
<td>3.1</td>
<td>14.0</td>
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<tr>
<td>F</td>
<td>9.7</td>
<td>3.0</td>
<td>10.3</td>
</tr>
<tr>
<td>G</td>
<td>13.8</td>
<td>4.6</td>
<td>14.6</td>
</tr>
<tr>
<td>H</td>
<td>13.1</td>
<td>2.1</td>
<td>11.7</td>
</tr>
<tr>
<td>I</td>
<td>6.7</td>
<td>1.9</td>
<td>5.3</td>
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<tr>
<td>J</td>
<td>11.6</td>
<td>1.9</td>
<td>12.6</td>
</tr>
<tr>
<td>K</td>
<td>7.1</td>
<td>2.0</td>
<td>7.7</td>
</tr>
<tr>
<td>L</td>
<td>8.3</td>
<td>1.9</td>
<td>7.2</td>
</tr>
<tr>
<td>M</td>
<td>9.3</td>
<td>4.2</td>
<td>8.8</td>
</tr>
<tr>
<td>N</td>
<td>10.7</td>
<td>2.7</td>
<td>10.4</td>
</tr>
<tr>
<td>O</td>
<td>8.9</td>
<td>1.6</td>
<td>9.9</td>
</tr>
<tr>
<td>P</td>
<td>10.8</td>
<td>3.2</td>
<td>8.8</td>
</tr>
</tbody>
</table>

*Significant at the .10 level.
Table 3
The Differences Between the Mean of the Es in the Upper and Lower Fourth of the E Distribution on each of the "16 P-F" Factors (N = 5)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Es in the Upper Quarter</th>
<th>Es in the Lower Quarter</th>
<th>t</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>A.</td>
<td>8.6</td>
<td>1.4</td>
<td>9.2</td>
</tr>
<tr>
<td>B.</td>
<td>9.8</td>
<td>1.7</td>
<td>9.4</td>
</tr>
<tr>
<td>C.</td>
<td>16.6</td>
<td>3.3</td>
<td>16.4</td>
</tr>
<tr>
<td>D.</td>
<td>14.2</td>
<td>1.3</td>
<td>15.8</td>
</tr>
<tr>
<td>E.</td>
<td>13.6</td>
<td>3.4</td>
<td>15.0</td>
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<tr>
<td>F.</td>
<td>9.0</td>
<td>2.8</td>
<td>8.8</td>
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<tr>
<td>G.</td>
<td>12.4</td>
<td>4.0</td>
<td>16.0</td>
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<td>H.</td>
<td>14.0</td>
<td>2.3</td>
<td>11.2</td>
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<tr>
<td>I.</td>
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<td>1.9</td>
<td>5.4</td>
</tr>
<tr>
<td>J.</td>
<td>11.4</td>
<td>1.9</td>
<td>11.8</td>
</tr>
<tr>
<td>K.</td>
<td>7.8</td>
<td>1.1</td>
<td>8.2</td>
</tr>
<tr>
<td>L.</td>
<td>8.2</td>
<td>1.7</td>
<td>6.8</td>
</tr>
<tr>
<td>M.</td>
<td>9.4</td>
<td>3.7</td>
<td>9.2</td>
</tr>
<tr>
<td>N.</td>
<td>11.6</td>
<td>2.1</td>
<td>9.6</td>
</tr>
<tr>
<td>O.</td>
<td>9.6</td>
<td>1.5</td>
<td>10.4</td>
</tr>
<tr>
<td>P.</td>
<td>11.0</td>
<td>.3</td>
<td>7.8</td>
</tr>
</tbody>
</table>

*Significant at the .10 level.
CHAPTER V

DISCUSSION

It was stated earlier that certain investigators hypothesized that certain specific E variables, such as anxiety, hostility and aggression, would be more important and predictive than others in studying E influence. It was also pointed out that though they may have been correct in certain instances, there was also the alternate possibility that perhaps some other, unconsidered, personality factors operating at the same time could be equally important. It was further suggested that it would be interesting and perhaps fruitful to take a global approach to the problem of E influence. That is, employ a personality questionnaire that attempts to assess many E personality dimensions and then relate them to differences in R.

The results, presented in Tables 1, 2, and 3 indicate that Cattell's "16 P-F" factors are apparently not determinants in R productivity. Note, however, that this is not saying that the traits which the "16 P-F" attempts to isolate and assess are not related to R differences, but rather, that these factors "A through Q_4", as delineated and measured by this questionnaire do not contribute to R productivity. The instrument's failure to discriminate factors could be that it was not designed to isolate factors on the graduate level, or that the "16 P-F" does not cover
all the pertinent features of E that effect R. In any event, the results of this study seem to suggest that the personality questionnaire approach to the assessment of E factors, though interesting, is not at present a promising research lead.

However, one is still faced with the problem of accounting for those E personality factors that effect R. At the risk of oversimplification, but for purposes of discussion, one might consider central and peripheral factors of the personality make-up of the examiner that may play an active part in influencing R productivity and variability.

Schafer (1954) has suggested that peripheral factors such as a look, a work, a gesture, often make a difference in the subject's definition of the testing situation. Wickes (1956) and Gross (1959) demonstrated that various postural, verbal and gestural changes, such as the nodding of the head, smiling, leaning forward in a chair, and saying "fine" or "good" after a response, significantly effects the incidence of that particular response. Thus it appears that seemingly irrelevant peripheral factors do play an active part in affecting Rorschach responses.

Aside from those peripheral cues supplied either consciously or unconsciously by E (the former probably resulting from his training or theoretical orientation), there are those central aspects of factors of his personality, one or more of which might usually be dominant, that contribute to differences in R (Miller et al., 1950; Sanders & Cleveland, 1953). In addition, there may be any one or combination of E factors which only become prominent or dominant when E is faced with Ss differing in personality type. That is, there may be feature(s) of E that do not
become apparent when he is faced with a cooperative S but which become dominant and evident when he is faced with a belligerent, or overly cooperative, or suspicious S.

In short, an intricate interpersonal relationship, with realistic and unrealistic aspects, exists during the testing. This is not an evil. It should not be striven against. As in the psychoanalytic technique, this relationship must be regarded as inevitable, as a potentially significant influence on the patient's productions, and as a possible gold mine of material for interpretation. Analyzing the interpersonal relationship and real test situation may take us out to, or beyond, the borders of "objective" test interpretation (Schafer, 1954, p. 6).

Other orientations and their consequences could very well be added to the peripheral and central E personality factors mentioned above. Those that have been considered should not be conceived of as being mutually exclusive or exhaustive but merely an attempt to account for E influence on R productivity and variability.
CHAPTER VI

SUMMARY AND CONCLUSIONS

An attempt was made to investigate the influence of E personality as measured by a personality questionnaire, on the number of Rorschach responses (R) that a group of subjects gave to a group of examiners. Two hundred (200) Rorschach protocols representing volunteer undergraduate college students submitted by 20 graduate students in clinical psychology were examined for the incidence of (R). The assessment of E's personality was determined by the Sixteen Personality Factor Questionnaire. The Rorschach protocol of each E was inspected for the number of (R). The Es were divided about the median (R) into two groups of ten and their respective performance on each of the "16 P-F" factors was determined. The difference between the mean of each group on each of the "16 P-F" factors was calculated. The same procedure was followed when working with the upper and lower levels of the E distribution.

The results suggest that it is tenable to assume that E factors measured by the "16 P-F" are not determinants of R productivity. Alternate ways of evaluating E's personality might be to obtain judgments by his superiors and colleagues or as Sanders and Cleveland (1953) suggest, to ask the test Ss to make ratings of their impressions of E.

An attempt was made to account for the E variable(s) that contributed to differences in R. Peripheral and central factors of E personality
were considered and discussed and it was concluded that interpretations of test responses and test behavior should not be considered separately but in light of the total testing situation.

The fact that experimenters whose subjects give many responses on the average also show many more extremes of responses than do subjects of those experimenters whose subjects are on the average low responders on the Rorschach is worth noting. The arbitrary elimination of the subject who makes 130 responses when the sample median of R is 33 may be considered in future analyses. A comparison of the records of these examiners where the mean R of their subjects is either high or low but where the variance is low should be useful.

The fact that such personality traits as emotional stability, personal warmth, dominance, sensitivity, sophistication, security, or excitability, among others are not related to the productivity of the examiners, subjects may lend additional negative support to the importance of such other factors as how the testing situation is structured, and how the subject himself structures the relationship. An impression of warmth given, or a feeling of warmth taken may be a fact of greater significance in Rorschach R productivity than the presence of personal warmth as a personality trait in the examiner. The capacity for conveying warmth and its actual presence in an examiner may be nevertheless related.
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APPENDIX I

BIPOLAR DESCRIPTIONS OF SOURCE TRAITS (FACTORS) A THROUGH Q₄

Factor

A. Aloof, Cold ......................... Warm, Sociable
B. Dull, Low Capacity ............... Bright, Intelligent
C. Emotional, Unstable ............... Mature, Calm
D. Submissive, Mild .................. Dominant, Aggressive
E. Glum, Silent ....................... Enthusiastic, Talkative
F. Casual, Undependable ............ Conscientious, Persistent
G. Timid, Shy .......................... Adventurous, "Thick Skinned"
H. Tough, Realistic ................... Sensitive, Effeminate
I. Trustful, Adaptable ............... Suspecting, Jealous
J. Conventional, Practical ........... Bohemian, Unconcerned
K. Simple, Awkward ................. Sophisticated, Polished
L. Confident, Unshakable ............ Insecure, Anxious
M. Conservative, Accepting .......... Experimenting, Critical
N. Dependent, Imitative ............. Self-Sufficient, Resourceful
O. Lax, Unsure ........................ Controlled, Exact
P. Phlegmatic, Composed ............ Tense, Excitable
APPENDIX II

STATISTICS ON THE NUMBER OF PROTOCOLS AND RESPONSES OBTAINED BY TWENTY ES

<table>
<thead>
<tr>
<th>Es</th>
<th>Ss Protocols</th>
<th>Total (R)</th>
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<th>S.D.</th>
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<td>21.33</td>
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## APPENDIX III

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44
The thesis submitted by Michael Anthony Partipilo has been read and approved by a board of three members of the Department of Psychology.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

Feb. 27, 1961
Date

Signature of Adviser