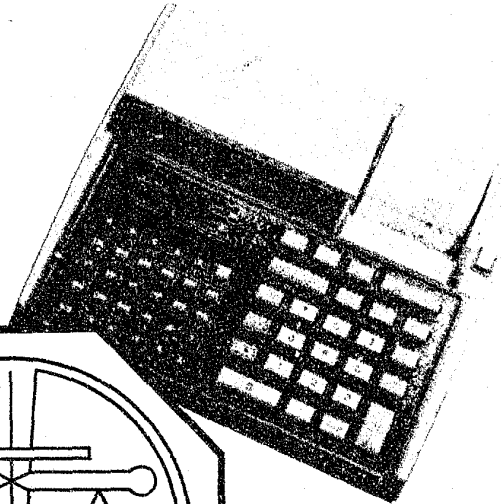
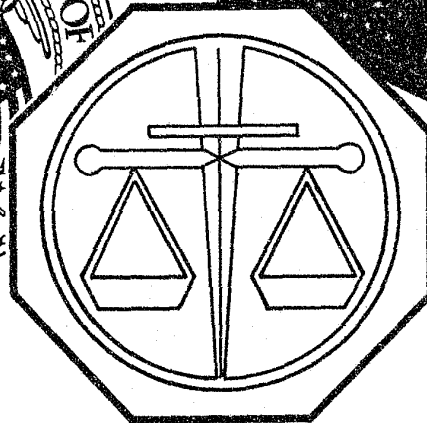
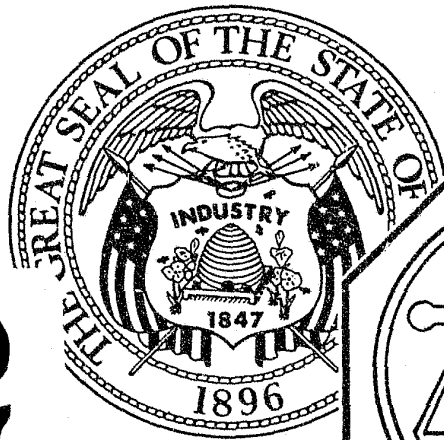


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RESEARCH & STATISTICS

RESEARCH REPORT NO. 1
SIMULATION OF PSYCHOPATHY ON
RORSCHACH RESPONSES
OF INSTITUTIONALIZED INDIVIDUALS

JUNE, 1978

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ABSTRACT

The controversy as to the stability of the Rorschach test under varied instructions was investigated. Forty-eight prison inmates at the Utah State Prison and the Forensics Unit at the Utah State Hospital were selected and placed in one of four diagnostic groups: 1) normal, 2) latent schizophrenic, 3) residual schizophrenic, 4) schizophrenic-psychotic. Subjects were administered the Rorschach twice, once with the instruction to respond as though they were normal-well adjusted, and once with the instruction to respond as if they were seriously mentally ill-as if they were psychotic. A counter-balanced double-blind design was used.

Using a content analysis, protocols were accurately analyzed by an independent judge as to the instructions given prior to their responses. The variables and ratios ep, blends, EA/ep, IC, P, a/p, and "grotesque" responses were also significantly altered as a result of varied instructions. These results indicated the vulnerability of certain aspects of the Rorschach test as a result of situational influences, but consistent with previous studies, a number of other variables which are considered more stable did not change as a result of instructions.

SIMULATION OF PSYCHOPATHY ON RORSCHACH RESPONSES
ON INSTITUTIONALIZED INDIVIDUALS

During the past 40 years, psychologists have continued to use psychological instruments to assess personality variables. These tests have found widespread use in such areas as clinical work, court systems, school related problems, neuropsychology, and forensic psychology. This continued use has stimulated extensive research into the validity of these psychological instruments.

Research findings have suggested that situational factors as well as the individual's personality structure have influenced testing situations and individual response patterns. Current studies have increased examiners' awareness of the many influences affecting the testing situation.

Many questionnaire or paper-pencil personality inventories or tests have been criticized because of their vulnerability to faking, i.e., where the subject responds as he perceives the examiner would desire or as he thinks would create the best impression, rather than revealing his true feelings. Some tests, for example the Minnesota Multiphasic Personality Inventory, have attempted to account for and control this problem by incorporating a lie and/or other "fake" scales in the assessment procedure.

The Rorschach Inkblot Test, however, has been one of the tests thought to be least vulnerable to situational influence or manipulation. The rationale for this validity has been thought to be the ambiguity of the stimulus material presented. The Rorschach was designed to measure the "basic personality structure," which has been considered stable and not significantly altered by situational factors.

Numerous studies have been conducted evaluating the effects of situational influences which may alter Rorschach responses, e.g.,

situational stress, sex and personality of the examiner, physical setting, and examiner's suggestion or instruction.

A number of investigators have examined the effects of varied instructions and psychological sets on Rorschach responses. These studies were designed to test the effect of standard instructions vs instructions to present good or bad impressions, or any other motivating, psychological set designed to alter test responses. Several researchers have concluded that although some of the variables changed in the predicted direction of manipulation, the more permanent picture of personality was unaffected, and the test could not be faked (Fabrikant, 1953; Fosberg, 1938, 1941; Norman, Leverant, & Redlo, 1952; Kurtz & Riggs, 1954; Stewart & Foster, 1960; Stellern, 1966). Berger (1954) investigated the effects of the Rorschach examiner on subjects' responses and found that the test reflected only insignificant examiner influence.

Other investigators, examining many of the same variables and using similar experimental designs, have found opposing results. They have concluded that subjects can manipulate their responses and alter their "basic" personality structure (Rappaport, 1954; Carp & Shavzin, 1950; Hutt, Gibby, Milton, & Pottharst, 1950; Gibby, 1951; Henry & Rotter, 1956; Easton & Feigenbaum, 1967).

Although these studies have attempted to determine whether or not Rorschach responses can be altered, either as a result of varied instructions or of psychological set, the results have been inconclusive and contradictory. As several investigators have suggested that situational influences were crucial in the interpretation of test results, the need for further study in this area is evident.

In view of these contradictory findings, the present study was conceived. The purpose of this study was to compare the Rorschach protocols of subjects who took the Rorschach after being instructed to appear "normal" with protocols of the same subjects when they were instructed to appear "mentally ill".

Since the studies cited above basically found that the only changes were on less stable dimensions typically compared when results from standard instructions were compared with those of "faking" in some way or other, it was decided to try to maximize possible changes by asking the subjects to respond as if they were "normal" and as if they were "mentally ill". The present study also differed from other studies as subjects with previously identified degrees of schizophrenic decompensation were used:

1. Never schizophrenic nor psychotic,
2. Schizophrenic but never psychotic (latent schizophrenic),
3. Schizophrenic but no longer psychotic (residual schizophrenic),
4. Schizophrenic and currently psychotic.

Further, all subjects were drawn from a homogeneous population, legal offenders. Finally, attention was paid to both content analysis and quantitative data from the structural summaries of the protocols.

Method

Subjects

A sample of 48 subjects was drawn from inmates currently residing at the Utah State Prison, and court committed institutionalized patients on the Forensic Unit at the Utah State Hospital.

Two Ph.D. clinical psychologists employed at the Utah State Prison selected 12 subjects for each of the following groups:

1. "Normal"--Non Psychotic: No observable signs of psychosis as assessed by direct observation, clinical interview, clinical

record and/or psychological testing.

2. Latent Schizophrenic: No history of psychosis in clinical record, but evidence of schizophrenic thought processes were observed during a clinical interview and/or psychological testing.
3. Residual Schizophrenic: Clinical record contained a written statement of past schizophrenic and psychotic behavior, but no current observable signs of psychosis as assessed by a clinical interview and/or psychological testing.
4. Schizophrenic- Psychotic: Clinical record contained a written statement of past schizophrenic and psychotic behavior coupled with current observable signs of psychosis as assessed by a clinical interview and/or psychological testing.

All subjects included in the study were males; no significant differences were found to exist in either age or length of institutionalization. Age ranged from 19 to 46 years ($\bar{X} = 29.8$ years). Length of institutionalization ranged from one month to seven years ($\bar{X} = 22.9$ months). Controls for type of crime or current status within the prison and/or State Hospital (maximum, medium, or minimum security) were not employed because of the limited number of subjects available, and mobility within the prison classification system.

Procedure

Using a 2 x 4 counter-balanced design, with the test examiner or judge not knowing the diagnosis of the subjects, 12 subjects were selected for each of the four diagnostic groups. Within each of the four diagnostic groups, half of the subjects first received instructions to "appear as if you are a normal well adjusted individual", while the other half received instructions to "appear as if you are mentally ill, as if you

are psychotic". Following the first administration, subjects were retested using the alternative set of instructions. As tests were administered to each subject under both sets of instructions, 96 protocols were obtained.

The time between test administrations varied due to prison or hospital regulations, procedures, and pending release dates. The average time between test administrations was 25 days.

Some may argue that with such a short time period between the two test administrations, memory may serve as a contamination factor. Others have addressed this issue with opposing results. Kelley (1942) concluded that if there was a carryover of responses between the two tests, the mental dynamics occurring at the time of the second testing were different from those involved in the first testing. On the other hand, Swift (1944) using a test retest design, tested pre-school children at 14 and 30 day intervals. He found that children produced the same responses on the second testing as they did on the first, 58 percent and 47 percent respectively, thus concluding a high recall rate.

The conflicting findings leave the question of contamination unresolved. This issue was minimized, however, for the present study because of the counter balanced nature of the design. Further, there was no significant difference between the number of responses given by subjects from the first to the second testing. Tests were scored following Exner's (1974) comprehensive scoring system.

Results

Clinical Judgment

Protocols were paired and randomly ordered with regards to instructions and diagnostic groups and given to an independent Ph.D. clinical psychologist with many years experience with the Rorschach. His task

was to determine which protocol was obtained under the instruction "appear normal" and which protocol was obtained under the instruction "appear mentally ill". Clinical judgments were based on an analysis of content, with lesser emphasis being placed on the Rorschach scoring criteria categories.

The judge was able to sort protocols into the two categories with an 80 percent accuracy rate. A Fisher's Z test was used to test the hypothesis that clinical judgment would surpass chance. This test of comparisons was highly significant, suggesting a most satisfactory ability to assess protocols and sort them as per instructions ($p < .001$). A chi square was used to further determine if the judge's ability to sort the protocols varied from one diagnostic group to another. Results were not significant, suggesting no difference from group to group.

"Grotesque" Responses

The judge noted many "grotesque" responses in those protocols he judged to be mentally ill. A "grotesque" response was defined as a response containing themes of depression, sex, blood, gore, mutilation, confusion, hatred, fighting, and decapitation. An analysis of variance was used to determine whether there was a significant difference in "grotesque" responses resulting from the two sets of instructions. A significant difference was found to exist between the group instructed to "appear normal" and the group instructed to "appear mentally ill", $F(1,44)=34.77, p < .0001$. Significantly more subjects instructed to "appear mentally ill" responded with "grotesque" responses.

No significant differences were noted between the four diagnostic groups from the judge's ratings. Similarly, the statistical analysis failed to yield significant results across the groups, $X^2(3)=1.52, p > .10$.

Insert Table 1 here

Summary Data

An analysis of variance was performed on all ratios, percentages, and derivations. Those variables with significant differences at or beyond the .05 level of confidence were further analyzed using a Newman-Keuls test.

When the four diagnostic groups were analyzed, significant differences were found on the following three variables: experience potential (ep), blends, experience actual/experience potential (EA/ep). The "normal"--non psychotic groups obtained significantly higher mean scores on the experience potential (ep) variable than the other diagnostic groups, $F(3,40)=6.29, p < .01$. The "normal" non-psychotic group also obtained significantly higher mean scores on the variable blends than did the other diagnostic groups, $F(3,40)=3.93, p < .01$.

Insert Table 2 here

Insert Table 3 here

However, the schizophrenic- psychotic group obtained significantly higher mean scores on the ratio variable experience actual/experience potential (EA/ep) than did the latent schizophrenic group, $F(3,40)=6.41, p < .01$.

Insert Table 4 here

Significant differences were found on the following four Rorschach scoring criteria: popular responses (P), experience potential (ep), blends, inappropriate combinations (IC). A t-test was used to determine significant differences between means using the two different sets of instructions as the independent variables. The groups instructed to respond as if they were "mentally ill" obtained significantly higher mean scores on the experience potential (ep), blends, and inappropriate combinations (IC), scoring criteria than did the group instructed to "appear normal" ($p < .001$). However, subjects responding to the instructions "be normal" gave significantly more popular (P) responses than did the group responding as if they were "mentally ill" ($p < .001$).

Insert Table 5 here

In analyzing the interaction effect between diagnostic groups and the two sets of instructions, a significant difference was noted only on the Rorschach scoring ratio active/passive movement (a/p). A subsequent Newman-Keuls test found that the latent schizophrenic group when asked to respond as if they were "mentally ill", obtained a significantly higher mean score than the other diagnostic groups using the two sets of instructions as a variable, $F(3,40)=3.19, p < .05$.

Discussion

Although the controversy as to whether or not the Rorschach test

can be altered by varied instructions has continued, evidence has been found which indicated that some of the dimensions of the test can be altered, and others cannot.

The success of the judge in accurately differentiating protocols resulting from the two different sets of instructions has reaffirmed the importance of content analysis as well as scoring summaries in the Rorschach interpretation process. One outstanding feature of subjects' responses to instructions "respond as though you are mentally ill", was the significant number of "grotesque" responses in their protocols. Indeed, 94 percent of the "appear mentally ill" protocols had one or more "grotesque" responses whereas 63 percent of the "appear normal" protocols had one or more "grotesque" responses. Clearly, many subjects equated being "mentally ill" with giving "grotesque" responses. The presence or absence of "grotesque" responses was most helpful in the judge's decision-making task as well as producing the highly significant F ratio.

Those placed in the "normal" diagnostic group obtained significantly higher scores on the experience potential (ep), blends, and experience actual/experience potential (EA/ep) variables than the other three diagnostic groups. It has been speculated that the "normal" group had a greater awareness of situational and unsettled stress, and gave responses of a more complex nature. Hence, the reality testing of the "normal" diagnostic group subjects may have been inflated as they responded to their current institutionalized situational setting.

When all diagnostic groups were asked to respond as though they were "mentally ill," they gave responses of a complex and stressful nature as indicated by the higher mean scores on the experience potential (ep), blends, inappropriate combination (IC), and "grotesque"

response variables. These responses may have represented general impressions, from all diagnostic groups, as to what 'mentally ill- psychotic' perceptions should be.

On the other hand, when all four diagnostic groups were asked to respond as though they were "normal," subjects reported more popular (P) responses. Again, this response set may have represented general impressions or assumptions that "normal" people would give responses easily seen by others.

When the interaction effects between groups based on diagnosis and instructions were analyzed, the latent schizophrenic group, who were asked to respond as though they were "mentally ill," gave significantly more active or assertive responses. This type of response, often found in characterological disorders, appeared to fit the stereotype of the "mentally ill" individual. It has been believed by some that "mentally ill" people were often more aggressive or assertive in their verbal reasoning. This may have accounted for the higher active passive (a/p) ratio.

Although typically patients diagnosed as schizophrenic obtain low F+% and X+% on the Rorschach scoring criteria, it was of interest to note that no significant differences were observed between the four diagnostic groups or the two instruction groups. Even though these percentages were not significant at the .05 level of confidence, some differences were noticed in the predicted direction so far as the diagnostic groups were concerned. However no differences were noted as a result of the basic instructions.

Thus in conclusion, six traditional Rorschach scoring variables,

in addition to the content analysis on "grotesque" responses, were found to be significantly altered as a result of varied instructions. However, other scoring criteria were not significantly altered when the instructions were varied. Those variables which changed were more situational in nature when the subjects were asked to respond under varied instructions. Those variables, which in previous studies have been shown less influenced by situational factors, did not change in this study. Again, the importance of the examiner's awareness of situational factors as he administers and interprets the test has been reemphasized, particularly if content analysis of the protocol has been the primary method of interpretation.

Table 1
 Analysis of Variance
 of "Grotesque Responses"

Source	df	MS	F
<u>Between group variance</u>			
Diagnostic groups	3	120.75	2.58
Instructions	1	1187.98	34.77*
Diagnostic group/ Instructions	3	6.76	.20
<u>Within group variance</u>			
Subjects	44	46.86	
Error	44	34.17	

* $p < .0001$.

Table 2
 Newman-Keuls Analysis on Group Means
 on the Variable ep

Diagnostic Groups	Means	Mean Differences		
		Gp4	Gp3	Gp2
Normal (Gp1)	12.502	7.791*	6.312*	5.687*
Latent Schizophrenic (Gp2)	6.875	2.104	0.625	
Residual Schizophrenic (Gp3)	6.250	1.479		
Schizophrenic-Psychotic (Gp4)	4.771			

*p < .01.

Table 3
 Newman-Keuls Analysis on Group Means
 on the Variable Blends

Diagnostic Groups	Means	Mean Differences		
		Gp3	Gp2	Gp4
Normal (Gp1)	0.157	0.111*	0.105*	0.103*
Schizophrenic-Psychotic (Gp4)	0.054	0.008	0.002	
Latent Schizophrenic (Gp2)	0.051	0.006		
Residual Schizophrenic (Gp3)	0.045			

* $\underline{p} < .01$.

Table 4
 Newman-Keuls Analysis on Group Means
 on the Variable EA/ep

Diagnostic Groups	Means	Mean Differences		
		Gp1	Gp3	Gp2
Schizophrenic-Psychotic (Gp4)	1.430	0.846**	0.800**	0.419*
Latent Schizophrenic (GP2)	1.011	0.427	0.381	
Residual Schizophrenic (Gp3)	0.631	0.047		
Normal (Gp1)	0.584			

* $p < .05$.

** $p < .01$.

Table 5
 Comparison of P, ep, Blends, IC,
 and "Grotesque" Responses with
 different instructions

Variable	"Be Normal"		"Be Mentally Ill"		t Ratio
	M	SD	M	SD	
P	6.2716	.2938	5.4055	.2938	14.2925*
ep	6.4222	.6553	8.8070	.6553	-17.6433*
Blends	.6175	.1255	.9172	.1255	-11.5729*
Inappropriate Combinations	.1663	.1568	.6150	.1568	-13.8695*
"Grotesque Responses"	3.3128	1.1354	10.2240	1.1354	-29.5079*

* $p < .001$

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