# THE EFFECT OF INSTRUCTIONAL SETS

ON THE RORSCHACH

Ву

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iii

# TABLE OF CONTENTS

		Page
I.	ABSTRACT	1
II.	LITERATURE REVIEW	2
	Previous Studies Conceptual Issues Statistical Issues Methodological Issues Theoretical Issues External Validity Hypotheses	2 15 16 18 19 21 23
III.	METHOD	24
	Subjects Design Judges Task Procedure	24 25 27 29
IV.	RESULTS	31
	Demographic Variables. Protocol Variables. Location Variables. Organizational Variables. Human Movement Variables. Developmental Quality. Form Quality. Human and Animal Content Variables. Other Content Variables. Isolate Ratio. WSUM6. Adjusted D and Lambda. Egocentricity Index. Suicide Constellation. Depression Index. X+%, X-%, WSUM 6. Judges Task. Demographics. Fake vs. Standard Protocols.	31 32 33 33 35 39 99 40 12 22 44 44 44 44 44 44 44
	Judges' Experience	45 46

		Descriptive Comparisons of Protocols	48
v.	DISCUSSION		49
VI.	TABLES		66
VII.	REFERENCES	1	01
VIII.	APPENDICES		
	APPENDIX	A - RORSCHACH VARIABLES 1	05
	APPENDIX	B - MENTAL HEALTH SCREENING INSTRUMENT 10	26
	APPENDIX	C - JUDGES' EVALUATION FORMS 1	07
	APPENDIX	D - JUDGES DEMOGRAPHY QUESTIONNAIRE 1	10

.

# LIST OF TABLES

Table			Page
	1.	Demographic Characteristics of Subjects	. 66
	2.	Mean Scores and Standard Deviations per Subject Condition	. 67
	3.	Scores Collapsed Across Psychiatric Statu	. 92
	4.	Human Movement Responses by Psychiatric Status and Initial Instruction	. 93
	5.	Scores Across Administrations by Instructional Set	. 94
	6.	Demographic Characteristics of Clinical Judges	. 96
	7.	Clinical Judges' Ratings of Protocols	. 97
	8.	Clinical Judges' Importance Ratings of Rorschach Factors on Decision Making	. 98
	9.	Clinical Judges' Ratings of Rorschach Factors on Decision Making	. 99
	10.	Mean Responses for Protocols	. 99

#### Abstract

The present study tested the hypothesis that the ability to modify Rorschach responses under different instructional sets (i.e., standard and fake) would vary as a function of the subject's psychiatric status. Contrary to expectations, it was found that, for the most part, nonpsychiatric subjects were not able to modify Rorschach responses to any greater degree than psychiatric patients. There were, however, a number of significant differences in responses as a function of instructional set (i.e., standard or fake). In addition, clinical experts were able to distinguish faked from standard protocols for several nonpsychiatric subjects but could not do so for psychiatric subjects. The Effect of Instructional Sets on the Rorschach Some individuals seen by mental health professionals have been found to misrepresent the type and magnitude of their problems on psychological tests. Their motives are varied but include 1) possible monetary gain through disability payments, 2) anticipation of more favorable legal consequences if litigation is pending, and 3) a desire to impress their distress upon mental health workers as a "cry for help", among others. Whatever the motives, the individual may misrepresent his or her situation in such a way that leads the mental health worker to devise inaccurate diagnoses and treatment regimens.

Many clinicians often give great weight to projective tests such as the Rorschach when objective test findings are of dubious validity (Meyer, 1986). There is a plethora of studies suggesting that misrepresentation of psychiatric status by a patient can be detected on objective personality tests such as the MMPI (e.g., Kroger & Turnbull, 1975). In contrast, there are fewer than 15 studies examining the susceptibility of the Rorschach projective test to misrepresentation or "faking." This is surprising given that the Rorschach has been the first and second most

researched personality measure before and after 1971, respectively (Polyson, Peterson, & Marshall, 1986).

Many commentators have asserted that the Rorschach is least vulnerable to response alteration relative to other psychometric measures (see Albert, Fox, & Kahn, 1980; Mittman, 1983; Seamons, Howell, Carlisle, & Roe, 1981). The reasoning for such a claim is based on the "projective hypothesis" which states that, when confronted with an unstructured stimulus, a person will, "actively and spontaneously structure unstructured material and, in so doing, reveal his structuring principles -- which are the principles of his psychological structure," (Rapaport, Gill, & Schafer, 1946, p.7). The argument follows that when provided with an unstructured stimulus a person does not have the "rules of conformity and conventionality" to guide his or her response as they might on an objective measure such as the MMPI, hence making a projective test such as the Rorschach difficult to "fake" (Easton & Feigenbaum, 1967).

In early studies examining faking, Fosberg (1938; 1941) administered the Rorschach under four different instructional sets to each subject. The instructions, given in the same sequence to all subjects, included: 1) standard, 2) "make the very best impression you can,"

3) "make the worst possible impression", and 4) to look . for particular determinants (e.g., human responses). In his first report, Fosberg presented data from two case studies. Rorschach indices were analyzed across the four sets of instructions with chi-square analyses to examine whether the four records were, "...no more than random deviations from a distribution in which the Rorschach categories are in a fixed relationship to one another?" (p. 12). In addition, Fosberg postulated that the chi-square analyses would discern how closely the actual frequencies for each Rorschach response category (e.g., R) would fit with the theoretical distribution of frequencies. Based on nonsignificant findings, Fosberg concluded that the Rorschach test was not susceptible to manipulation.

Fosberg's second study included fifty students. Data were analyzed by test-retest correlations of the different Rorschach categories (e.g., location, determinants, and content). As with his previous study, Fosberg concluded that the high positive test-retest correlations (i.e., .80 or better) for these categories across instructional sets (i.e., standard and "worst impression") were indicative of the Rorschach's resiliency to manipulation.

Cronbach (1949) criticized Fosberg's statistical analyses in both of the foregoing studies. Specifically, Fosberg assumed that the chi-square analyses in the first study showed that the protocols for each person corresponded and were not paired at random. That is, the <u>D</u> score in the first record was nearer to the <u>D</u> score in the second record than it was to <u>C</u>, or other scores. But, as Cronbach explained, similar results would have been obtained even if the records from different people had been used in that each score has a limited range (i.e., <u>D</u> tends to be large, <u>m</u> tends to be small, etc.); hence, a significant chisquare would have been obtained regardless of whether intra- or inter-individual comparisons had been made.

Cronbach's criticism of Fosberg's correlational analysis is also based on the greater magnitude of responses for certain indices relative to others. For example, Fosberg correlated pairs of values such as  $\underline{W}1-\underline{W}2$ ,  $\underline{D}1-\underline{D}2$ , etc. As previously noted,  $\underline{D}$  tends to be large while another index such as m tends to be small. Consequently, the high frequency of  $\underline{D}$  responses may cause the two sets to correlate and would have done so even if the correlated scores came from two different subjects.

Although lacking in statistical analyses like Fosberg, Rosenberg and Feldberg (1944) presented a qualitative description of Rorschach responses for a group of 93 soldiers identified as known malingerers or suspected of malingering on a psychiatric examination. The authors asserted that signs of malingering on the Rorschach included few number of responses, an increased amount of popular responses relative to norms, and a tendency to recognize difficult forms and reject easy forms. Perhaps of most help to the Rorschach examiner in detecting misrepresentation, was the authors' description of respondents' behavior during testing of the limits. They found that during this procedure examinees would often either refuse to see any new responses, even when shown to the respondent in minute detail. The authors interpreted this behavior as the respondent thinking he must be absolutely consistent with his initial performance or else he would "give himself away."

The next empirical study following Fosberg's was Carp and Shavzin's (1950) attempt to replicate Fosberg's earlier findings. Using a test-retest design, they asked twenty undergraduates to take the Rorschach twice during the same assessment period; once under "good" and "bad" instructional sets, respectively, with the order

counterbalanced. The relationship of Rorschach indices (i.e.,  $\underline{F}$ , etc.) between trials was examined via t-tests and correlations.

The t-test results showed that only  $\underline{Z}$  responses differed across instructional sets. The authors acknowledged that the lack of more differences could have been because subjects may have adopted different strategies in "faking" their responses. That is, some subjects may have increased or decreased certain or all responses which could have resulted in differences being balanced out in the analyses due to the diversity in direction taken. Correlations between indices across trials ranged from .16 to .97. The M, CE, and Ct response categories had correlations of .16, .17, and .33, respectively. The authors concluded that, in general, subjects' responses on the "good" test did not show a close relationship with the same response categories of the "bad" test (i.e., M1 compared to M2, etc.) . Hence, contrary to Fosberg's results, Carp and Shavzin claimed that the Rorschach can be manipulated by some subjects.

Feldman and Graley (1954) attempted to clarify the apparent contradictory findings of the Fosberg and Carp & Shavzin's studies. They used a group administration of the Rorschach with two groups of undergraduate

students to examine changes in responses across standard and "worst impression" instructional sets. One group took the test under both sets of instructions two weeks apart, while the other took it only under the "worst impression" set. The authors compared changes between pre- and post-test data for 35 Rorschach categories by using a chi-square analysis. The median of the combined groups was used as a cutting score to measure individual's changes per category. Several of the indices changed across instructional set with the determinant and formal content categories changing the most and location scores hardly at all.

Unfortunately, conclusions made from the foregoing results are somewhat obscured in that the authors did not control for the total number of responses per individual across trials. Another methodological drawback to this study is, of course, the group administration which is contrary to the typical procedure and scoring of Rorschach's given individually. Hence, extrapolations as to misrepresentation for individual administrations based on Feldman and Graley's findings is problematic.

The foregoing limitations aside, Feldman and Graley were the first researchers to empirically examine the ability of clinicians to detect standard and "faked"

protocols. They found that, in using a sorting procedure, four judges were able to successfully differentiate standard from "faked" protocols beyond chance levels. Two of the judges were told the proportion of standard to faked protocols and two were The informed judges appeared more accurate in not. detection. There were, however, only six cases examined and only descriptive analyses were reported, thereby, limiting the interpretation of this base-rate knowledge (i.e., proportion of normal to fake) on the clinicians' responses. Interestingly, the examinee's inability to significantly alter responses across instructional sets was speculated to be the result of the rigid and inhibited members of the group who may not have been able to comply with the unstructured task (i.e., "worst impression" instructions). This was the first intimation in this line of research which suggested that the psychological status of a person may affect their ability to significantly alter a Rorschach protocol.

Some years after the foregoing study, Easton and Feigenbaum (1967) examined the Rorschach responses of 36 undergraduates in a test-retest design. Two groups of subjects were given standard Rorschach administrations and, immediately afterward, half were asked to "fake bad" on a second administration while the other half

were again given the standard instructions. The authors used t-tests to examine differences on selected Rorschach categories for all comparisons. They found significant differences between certain test-retest categories for both groups of subjects, in addition to group differences on second administration comparisons. Based on their results and at first glance, it would appear that multiple administrations of the Rorschach alone, irrespective of instructional set, lead to changes in response categories. Unfortunately, however, the authors did not control for total productivity (i.e., R) in their analyses which obfuscates any interpretations of such results.

Albert, Fox, and Kahn (1980) were next to address the issue of faking on the Rorschach by employing Feldman and Graley's previously-described methodology of using judges to detect malingering. They asserted that the examinee's knowledge of psychopathology would differentially affect their ability to alter responses, thereby affecting clinicians' ability to detect faked protocols obtained from psychiatric inpatients and normals. To test this hypothesis, they obtained protocols from six psychiatric patients and 18 undergraduates. The students were categorized into groups of 1) "uninformed fakers" who were asked to

malinger as a paranoid schizophrenic, 2) "informed fakers" who received descriptions of schizophrenic symptoms but no instructions as how to respond on the Rorschach, and 3) normal controls. Sets of four protocols were then given to expert judges to evaluate their ability to detect malingering.

The judges designated only nine percent of the protocols as malingered, albeit the authors did not report possibly important baseline information (i.e., how many faked and standard protocols were given to each judge). The authors' main hypothesis was confirmed statistically in that judges detected fewer informed fakers' protocols as malingers compared to uninformed fakers; hence, it appeared that subjects' knowledge of psychopathology did affect judges' ability to discern misrepresentation on the Rorschach.

Seamons and co-workers (1981) addressed the foregoing issue of psychopathology in a different manner. They examined the effect of instructional set on the Rorschach responses of prison inmates and forensic patients by categorizing 48 subjects into four groups which varied along a continuum of pathology: 1) nonschizophrenic, 2) latent schizophrenic, 3) residual schizophrenic, and 4) schizophrenic. Using a 2 X 4 counter-balanced design, controlling for the order of

administration, subjects were asked to take the Rorschach and portray themselves as "normal" and "mentally ill" on separate occasions with a 25 day testretest interval.

Analyses of variance detected only one significant difference for determinants (i.e., P) across instructional sets; 48 Rorschach variables were examined. Based on a review by an independent psychologist, however, an increase in dramatic responses (i.e., blood, mutilation, decapitation, etc.) was noted and subsequently shown to be statistically significant when responses were categorized along this operationally-defined dimension (i.e., dramatic vs. nondramatic) and analyzed. The clinician was able to accurately differentiate normal from mentally ill protocols in 80 percent of the sample. Hence, it appears that, in this instance, the degree of psychopathology may not have been varied enough to produce significant differences on traditional Rorschach indices as a result of different instructional sets. On the other hand, a method of classifying response categories was determined which assisted a judge in blindly discerning "normal" from "mentally ill" protocols.

This latter finding is not surprising in that it appears the judge was able to review the "normal" and "mentally ill" protocols for the same individual. It is tenable to expect that many of the responses for the same individual may not vary considerably across administrations. Hence, it is conceivable that the judge was able to match normal and mentally ill protocols for each individual and merely select the one with the most dramatic responses as representative of greatest pathology.

A more recent attempt to test the susceptibility of the Rorschach to malingering involved 90 clinicians who examined normal and faked protocols (Mittman, 1983). In this study, Rorschach protocols included records taken from inpatient depressives, inpatient schizophrenics, uninformed fakers, informed fakers, and normal controls. Each clinician was given a randomly selected package of five protocols. Results showed that these judges detected only a small percentage of the faked protocols.

Most recently, Meisner (1988) requested undergraduates to malinger "depression" on the Rorschach after being provided descriptions of DSM-III depressive symptoms. Findings showed that prospective malingerers gave more "morbid" and "blood" responses, in addition to lower total productivity, relative to controls. On the

whole, however, other Rorschach indices showed limited susceptibility to malingering.

A unique study utilized Exner's Computer Interpretation program to analyze faked Rorschach protocols submitted to clinical judges in an earlier study (Khan, Fox, & Rhode, 1988). The computer program had a false positive rate (i.e., rating true protocols as invalid) 33 percent of the time and a false negative rate 66 percent of the time. The determination of invalidity was apparently made predominantly on the basis of low productivity (i.e., R). The computerized judgments were better than those of previous clinical judges, however, in rating 33 percent of faked protocols as malingered compared to eight percent for the experts.

The foregoing studies have been important in addressing the problem of deception on the Rorschach. Nevertheless, the basic question of, "Can subjects significantly alter Rorschach protocols relative to their 'true' profile?" remains unanswered for a number of reasons. Specifically, the research described above has been plagued by: 1) conceptual problems, 2) statistical deficiencies, 3) methodological problems, 4) the lack of theoretical considerations, and 5) a minimum of external validity.

Conceptual Issues: Each of the foregoing studies has only alluded to what constitutes misrepresentation on the Rorschach, using such descriptors as, "faking," "malingering," and "deception." The reason an examinee may misrepresent their responses on the Rorschach has, essentially, been unaddressed. For example, as with the MMPI, an individual may intentionally or unintentionally respond to the test as a "cry for help" and try to alert the examiner as to their psychological distress and need for treatment. Alternatively, an examinee may deliberately attempt to deceive the examiner in order to receive preferential treatment as might be the case with a legal defendant wanting to avoid prosecution or a claimant desiring to obtain disability benefits.

The foregoing studies examining faking on the Rorschach asked subjects to respond as if: 1) they wanted to avoid being drafted into the military, 2) they wanted to "create the best or worst possible impression of yourself," as viewed by a group of psychologists, or 3) they were a psychiatric patient (with and without the benefit of role instructions). Obviously, these varied instructions may produce different strategies of deception. It would seem that the intent of misrepresentation would be a significant variable affecting the generalizability of findings in this type of research.

The present proposal is concerned with only one type of deception on the Rorschach--a deliberate and intentional strategy with the intent of escaping criminal prosecution due to legal insanity. There are, of course, many possible motivations to deceive, as mentioned previously. The present deceptive strategy has been selected arbitrarily. No assumption is made that this motivation for deception occurs more frequently than others. It would seem, however, that only after one possible impetus for deception is investigated, in a methodologically and statistically correct manner, would it seem appropriate to direct attention to how other intentions might affect responses.

Statistical Issues: Some of the statistical deficiencies in previous studies have already been highlighted. For example, it was noted that in some studies correlational analyses were performed which may have yielded spurious results due to the restricted frequency of responses of Rorschach categories (i.e., correlations across categories such as <u>R</u> traditionally have many responses and categories such as <u>m</u> have few responses rather than a function of the different instructions per se). Moreover, several studies failed to control for the total productivity of responses (i.e., R) per subject, hence making any statistical change in response categories across instructional sets difficult to interpret (i.e., is the change a result of the respondent actually changing determinants or a result of an increase or decrease in total number of responses which would, consequently, affect the number of determinants in any one category?). Finally in regard to statistical issues, some of the foregoing studies reported significant changes as a result of the different instructions. These are statistically significant changes, however, and their clinical importance must be addressed. That is, even if statistically significant changes occur, are they of the magnitude that might change clinical judgments?

The present study will attempt to improve upon previous statistical approaches. First, changes in total productivity per subject will be controlled by covarying total responses across administrations. Second, the present investigation will also focus on the magnitude of changes. That is, the number of response categories that change by a standard deviation or more relative to existing norms will be examined. It seems tenable that an increase or decrease by this amount would alter clinical judgments.

Methodological Issues: All of the foregoing studies reporting quantitative results have used a repeated-measures design with varying test-retest intervals. Only a few of the studies counterbalanced the order of instructions to control for possible sequential effects of the instructions. The repeatedmeasures design seems most appropriate in answering the question of, "how would a subject's deceptive responses differ from their usual responses on the Rorschach?" At first glance, it would seem that one administration may contaminate the other. That is, would a subject give entirely different responses if asked only to fake compared to responses given when asked to give both fake and standard responses? But the empirical question at hand concerns subjects' ability to modify or change their "standard" responses more than how groups of subjects might differ if one offers their "standard" responses and another gives "faked" responses. Consequently, a test-retest design seems most appropriate to address the research question concerning subjects' ability to modify Rorschach responses.

Given the appropriateness of the repeated-measures design to address the experimental question, the issue

of test-retest interval remains. Many of the abovecited studies used test-retest intervals of several days while others gave multiple administrations on the same day. It would seem that an interval spanning days would risk changes of responding as a result of extraneous variables (e.g., change in psychological status) in addition to instructional set. The present investigation will attempt to minimize such extraneous variance by repeating Rorschach administrations in one session and counterbalancing the order of instructions.

Another methodological issue needing to be addressed is the type of population used. For the most part, previous studies have examined the capability of students to modify Rorschach responses across instructional sets. Only one study (Seamons et al., 1981) actually used subjects (prisoners) judged to have a psychiatric disorder in a test-retest format which found few changes in response categories across instructional sets except for those involving content. Other studies not directly examining malingering have suggested that psychiatric patients have difficulty in altering Rorschach responses even when specifically directed (e.g., Exner, 1976; Fabrikant, 1953).

Theoretical Issues: A possible explanation as to why psychiatric patients may have difficulty in altering

their Rorschach responses may have to do with what has been called a "loss of boundaries" (Kernberg, 1967; 1970). Boundaries are hypothetical constructs which refer to the ability to create particular cognitive and affective distinctions along some bipolar continuum. For example, when a child is unable to distinguish between fantasy and external reality, it can be said that the child is incapable of forming a particular boundary which integrates content and defines experience (Wilson, 1985). In terms of the Rorschach, a loss of boundaries might be exemplified when a respondent personalizes their answer such as, "This reminds me of going to the circus when I was young." Rapaport, Gill, and Schafer (1968) have explained this loss of boundaries by certain examinees as an inability to take proper "distance" from the inkblots due to a failure in certain ego functions.

Based on the foregoing reasoning, it would seem tenable to suggest that the ability to significantly alter Rorschach responses may be based on the examinee's psychiatric status. Consequently, it would seem important to examine whether the ability to alter Rorschach responses may vary along a continuum of psychological dysfunction by utilizing a sample of psychiatric patients.

External Validity: Previous studies have attempted to make their investigations clinically relevant by examining the ability of psychologists to detect "faked" protocols. Results have been mixed with one study finding that judges could readily detect faked protocols while other studies found judges to be error prone. As previously described, however, the more successful judges apparently had the benefit of seeing both the standard and faked protocols; hence, their "hit" rate may have been inflated by merely matching protocols of individuals that had certain identical responses across administrations and identifying the protocol as faked if it had more dramatic responses. Consequently, it appears important to eliminate this bias in a judgment task.

In addition to the foregoing procedural issue, the ability of judges to identify faked protocols must be considered in terms of being clinically meaningful. To ask a judge to identify faked Rorschach protocols without benefit of other data seems far removed from clinical reality. In actuality, a clinician is likely to have background information, observations, and other test data upon which to make clinical judgments concerning deception. Hence, to address the issue of generalizability of experimental findings, it seems

important to examine how additional clinical information in conjunction with Rorschach protocols might affect the success of judges to discern faking. The present study will examine the effect of the presence or absence of information (e.g., patient's age and sex; clinical setting; psychiatric status; marital status; highest level of education; present job, if any) on clinical judges' ability to identify faked Rorschach protocols and make accurate diagnoses.

Based on the foregoing highlights, it can be asserted that the susceptibility of the Rorschach to response alteration remains open to empirical verification. That is, the ability to "fake" a Rorschach presupposes that the subject will be able to suppress or elaborate upon their "true" responses. This ability has yet to be substantiated in a methodologically correct way. Furthermore, there may be important variables that affect the ability to alter Rorschach responses. For example, does the psychological status (i.e., psychiatric or nonpsychiatric) of subjects affect the ability to fake? In addition, even if subjects are successful in altering their responses to produce statistically significant changes, will the magnitude of those changes be great enough to change clinical judgments? Moreover, can

clinical judges discern faked protocols more accurately than non-faked protocols if the task is made more realistic by providing additional clinical information? The present proposal will address the foregoing issues and questions.

Hypotheses: The formal hypotheses are as follows:

1. The ability to modify Rorschach responses under different instructional sets will vary as to whether the subject is a psychiatric or medical patient. Hence, it is predicted that nonpsychiatric medical patients as a group will be able to change Rorschach responses (see Appendix A) to a greater degree relative to the psychiatric subject. It is asserted that this difference will not be the result of demographic or intellectual differences between groups.

2. Judges' accuracy in detecting a faked Rorschach will vary as a function of having additional clinical information. That is, judges who know more about the patient who produced the protocol being reviewed (e.g., sex, verbal intelligence, clinical setting, psychiatric status, marital history, present job, if any) will have better success in identifying faked protocols relative to judges who do not have such information.

# Method

<u>Subjects</u>. Forty participants were obtained from the inpatient psychiatric ward at the Veterans Hospital, White River Junction, Vermont. Three patients who were floridly psychotic, uncooperative, or delirious, as judged by a clinical psychologist assisting in the study were excluded. In addition, the patient's treating clinician was contacted to rule out patients he or she thought might find the procedure aversive or for whom the present study might interfere with psychological testing to be ordered as part of their diagnostic work up (i.e., four).

Forty nonpsychiatric medical subjects were obtained from both medical outpatient clinics from the same hospital or were solicited from newspaper advertisements requesting participation from veterans. Nonpsychiatric medical subjects taking psychotropic medication were excluded. In addition, nonpsychiatric medical subjects were asked to complete a brief mental health instrument (see Appendix B). Subjects indicating more than occasional (i.e., "sometimes") psychological distress were excluded. As a further screen for psychiatric problems these volunteers were asked to take a shortform of the MMPI (Faushingbauer, 1966). Any patient obtaining an invalid profile or having one or more

elevated clinical scales (i.e., more than two standard deviations from the mean) were eliminated from the study. Furthermore, each nonpsychiatric medical subject was interviewed briefly (e.g., previous psychiatric history, employment background, interpersonal interactions, present stressors, etc.) by a staff psychologist who rated each subject according to their overall level of psychiatric functioning using the Global Assessment Scale (Endicott, Spitzer, Fleiss, & Cohen, 1976). All nonpsychiatric medical subjects had to obtain a rating of 61 or above to be included. Both psychiatric and nonpsychiatric medical subjects were asked to take The Quick Test (Ammons & Ammons, 1962) to serve as a comparison for intellectual level between groups.

<u>Design.</u>

a) <u>Test-Retest</u>: The two groups of subjects, psychiatric and nonpsychiatric medical, were asked to take the Rorschach on the same day under two sets of instructions: 1) standard (Exner, 1986) and 2) "fake." The latter set of instructions were as follows:

I would like for you to give responses that you think would create a misimpression of yourself if the answer were given to a team of doctors. For

example, if you wanted to convince a team of doctors that your were criminally insane--but, in truth, you were not-- give answers that you think would lead them to believe that you were of such mind as to be unable to comprehend the consequences of your acts and be unable to distinguish between right and wrong conduct.

I realize that you may actually have a psychiatric disability and problems. But you are likely to still be able to distinguish between right and wrong conduct. Give answers that you think might make a team of doctors think you were legally insane in order to avoid criminal prosecution.

Let me remind you that this is only an experiment. No record of your answers will be placed in your chart. This is for research only and in no way will ever affect your medical treatment, present disability status or future application for disability.

The dependent measures were 42 Rorschach variables obtained from Exner's Comprehensive Scoring System (1986; see Appendix A).

b) Judges' Task: In addition to the foregoing test-retest comparisons, standard and faked protocols were given to expert judges. These judges were respondents who answered request letters sent to 200 Rorschach workshops alumni conducted by Exner (see Mittman, 1983). Of the 200 alumni enlisted, thirty judges completed the evaluation of the protocols. Two sets of judges received different packets of four Rorschach protocols each (i.e., Exner scores and responses verbatim including the inquiry; eight different protocols in all). More than one set of protocols was used in case one of the protocols may have been, for some reason, aberrant.

The four protocols in each set consisted of two from the psychiatric population and two from the nonpsychiatric population (one taken under standard and one taken under "faked" instructions for both groups). The protocols were randomly selected with the only constraint being that standard and "faked" records were not those of the same individual. In addition, only the first administration (i.e., either standard or fake) were used in order to control for order of presentation. This does not enable a test-retest format that was used in the previous evaluation looking at the ability of

subjects' to alter their Rorschach responses across administrations.

Half of the judges in each group received background information for the protocols. Specifically, these judges were told: 1) the person's age, sex, education, employment status, and marital status, 2) the setting (i.e., Veteran's Hospital, 3) whether the person had a previous psychiatric history (for nonpsychiatric patients, judges were told no previous psychiatric information was available), and 4) verbal intelligence.

The judges were asked to rate whether they thought a given protocol was given under standard or fake instructional sets along a seven point Likert scale (i.e., 1=sure taken under standard instructions; 7=sure given under fake instructions; see Appendix C). In addition, judges were asked to weight the importance of various input (i.e., Rorschach ratios, determinants, location, content, sequence of responses, clinical information when provided, and other input to be identified by the judge) along a continuum (i.e., 1=not important to 7=very important) in regard to forming their judgments as to whether a protocol has been faked. All judges were asked to provide a variety of

information concerning their background with the Rorschach (see Appendix D).

Judges were also asked to rate the protocols as to how adjusted/maladjusted they felt the examinee was based on all available information (i.e., 1=very well adjusted; 7=very maladjusted). As before, they were asked to rate the importance of the foregoing variables in this decision.

#### Procedure

Psychiatric subjects were randomly selected from a list of ward patients, given the aforementionedmentioned constraints. Nonpsychiatric subjects were solicited via hospital and newspaper advertisements. Subjects were given The Quick Test and, for nonpsychiatric participants, the MMPI prior to taking the Rorschach. GAS ratings of the nonpsychiatric subjects were also made prior to the Rorschach administrations.

The Rorschach was administered by three postmasters level examiners, all of whom have had previous training in administering and scoring the Rorschach with Exner's system. Examiners were blind to the subject's psychiatric status and order of Rorschach administration. The order of administration (i.e., standard or fake) was determined randomly with the only
constraint of having an equal number of subjects per design condition; hence, the order was counterbalanced. A psychologist not serving as the examiner introduced the subject to the study. Subjects were informed as to the intent of the study and the "fake" and standard instructions. Subjects were asked to not let the examiner know in which order they were giving responses (i.e., fake or standard). In some instances, the psychologist not serving as an examiner, instructed the subject as to the order they were to give responses in order to ensure an equal number of subjects per condition. The second administration of the Rorschach followed the first as soon as possible on the same day.

Protocols were scored by one of the examiners who was blind to the subjects' psychiatric and instruction status. A random check of scoring on 20 protocols was performed by two independent psychologists, both of whom also lacked knowledge as to the subjects' experimental conditions. When there were disagreements across raters, scores were changed based on consultation with the most experienced rater in terms of years of experience using and teaching the Exner scoring system.

## Results

a) Test-Retest: Relevant demographic information is summarized in Table 1. Psychiatric and nonpsychiatric subjects differed for Verbal IQ, t(78)=4.95, p < .01, and years of education, t(78)=4.23, p < .01. Hence, these variables were included as covariates in all analyses. In addition, the total number of responses for each administration was used as a covariate in many analyses. Mean responses and standard deviations for each subject condition (i.e., psychiatric, standard instructions first; psychiatric, fake instructions first; nonpsychiatric, standard instructions first; nonpsychiatric, fake instructions first) are shown in Table 2.

Upon reviewing the data, it was determined that four subjects (three psychiatric and one nonpsychiatric) may not have completely understood that they were to attempt to alter their responses across administrations; the examiner made notations that the subjects expressed confusion as to the task objectives. Their responses on the second administration was almost identical to the first administration, hence, underscoring a possible misunderstanding of the instructions. Consequently, the data for their second administration were omitted; it

was not possible to replace these subjects due to institutional constraints.

A series of 2 (Group: nonpsychiatric vs. psychiatric) X 2 (Administration: first and second) X 2 (Initial instruction: fake or standard administration first) repeated-measures MANACOVAs were used to examine the Rorschach response categories when it was possible to group a number of variables into logical categories (e.g., W, D, Dd, and <u>S</u> as location variables, etc.). When it was not possible to group variables in order to minimize Type I error, separate repeated-measures ANACOVAs were conducted.

The MANACOVA examining the location variables did not reveal any significant effects, although there was a marginal effect for time, E(4,68)=2.49, p < .06. It appeared that, regardless of group membership or which type of instruction was used initially, subjects tended to give more W responses on the first administration than the second, although this was not examined via univariate tests, given the nonsignificant MANACOVA findings (see Table 3 for means and standard deviations).

A MANACOVA was conducted for the organizational variables <u>Zf</u>, <u>ZSUM</u>, and <u>Zd</u>. The analysis yielded a significant interaction for initial instruction by

administration,  $\underline{F}(3,67) = 3.97$ ,  $\underline{p} < .05$ . Subsequent ANACOVAs were conducted for each variable separately. The ANACOVAs for <u>ZSUM</u> and <u>Zd</u> did not reveal any significant results.

The ANACOVA for the organizational variable  $\underline{Zf}$ indicated that subjects, regardless of psychiatric condition or initial instruction, tended to give fewer responses having organization (i.e.,  $\underline{Z}$ ) on the second administration,  $\underline{F}(1,73)=6.55$ , ,  $\underline{p} < .01$ , (see Table 3 for means and standard deviations). Hence, even when the total number of responses across administrations is controlled for as a covariate, the frequency of  $\underline{Z}$ responses decreases. This could suggest a decline in motivation or, perhaps, involvement in the task in that the subjects make less of an effort to organize different components of the blot on the second administration.

In regard to human movement variables (i.e., M+, Mo, Mu, and M), there were very few individuals who had M+ responses which, when subjected to a MANACOVA, resulted in a lack of within-error variance and produced spurious results. Hence, the number of M+ and Mo responses were combined, as were the Mu and Mresponses. The MANACOVA revealed a significant effect for initial instruction (fake or standard first) by

administration (first or second), F(2,69)=3.83, , p <.05. Consequently, univariate tests were conducted which revealed a significant three way interaction for psychiatric status by initial instruction by administration only for M+ and Mo combined but not for Mu and M- as an aggregate, F(1,71)=5.39, p < .05 (see Table 4 for means and standard deviations). No other effects were significant. Tukeys tests showed that nonpsychiatric subjects who received standard instructions initially, had significantly more M+ and Mo responses on the first administration compared to both psychiatric and nonpsychiatric subjects who initially received fake instructions,  $\underline{p}s < .05$ . In addition, the nonpsychiatric, standard-first subjects significantly decreased their number of responses on the second administration under fake instructions. No other comparisons were significant.

The foregoing MANACOVA did reveal a marginally significant psychiatric status by initial instruction by administration interaction (i.e., p < .10). Hence, when combined with Mu and M- responses in the MANACOVA, differences for M+ and Mo were diluted. When examined via the univarite test, however, the findings were significant.

The MANACOVA for developmental quality (i.e., DO+,  $\underline{DOv}/+$ ,  $\underline{DOo}$ , and  $\underline{DOv}$ ) produced a significant interaction for initial instruction by administration, E(2,70) = 5.76, p < .05, with no other effects or interactions being significant. Separate ANACOVAs showed significant interactions for initial instruction by administration for <u>DO</u>+ and <u>DO</u> but not for <u>DO</u>v/+ or <u>DO</u>v, F(1,71)=12.52, p < .01 and E(1,71)=11.20, p < .01, respectively (see Table 5 for means). Tukeys tests showed that only subjects who initially gave responses under the fake instructional set significantly changed their number of <u>DQ</u>+ responses (i.e., decreased across administrations). For DO responses, on the other hand, Tukeys tests showed that both groups of subjects initially receiving either standard or fake instructions significantly changed their responses across administrations, ps < .05. Moreover, the two groups (i.e., fake first vs. standard first) significantly differed from each other for the number of <u>DO</u>o responses given on both administrations. Again, no other effects were significant.

The MANACOVA for form quality (i.e., FOx+ and FOxovs. FOxu and FOx-) produced a significant interaction for instructions by administration, F(2,70)=6.44, <u>p</u> < .01. No other effects or interactions were significant.

Univariate tests revealed that, for FOx+ and FOxo, individuals who gave "standard" responses on the first administration significantly decreased the number of "good" form quality-responses on the second, fake instructional set, E(1,71)=11.60, p < .01. This finding was demonstrated regardless of psychiatric condition (see Table 5 for means and standard deviations). Tukeys test confirmed this difference, and, in addition, showed that the two groups differed for the number of FOx+/oresponses on the first administration, p < .01. In contrast, subjects who initially gave responses under the fake instructional set did not significantly change the number of good form quality responses given under standard instructions on the second administration. Hence, it appears that both, psychiatric and nonpsychiatric, subjects significantly altered their responses in terms of good form quality when going from standard to fake responses but not from fake to standard.

Consistent with the foregoing findings, the ANACOVA for combined <u>FOx</u>u and <u>FOx</u>- responses was significant for the initial instructions by administration interaction, E(1,71)=7.95, p < .01. Tukeys tests showed that the standard-first and fake-first groups differed on the first administration, p < .05. Only the fake-first

group, however, significantly changed (i.e., decreased) their responses across trials (i.e., from fake to standard), p < .05 (see Table 5 for means).

When just pure form quality was considered (i.e., FOf+ and FOfo vs. FOfu and FOf-) the interaction for initial instruction by administration was once again the only significant statistical finding for the MANACOVA, F(2,70)=5.66, p < .01. For the <u>FOf</u>+ and <u>FOf</u>o combined indice, univariate tests confirmed the foregoing interaction, E(1,71)=11.17, p < .01 (see Table 5 for means). The analysis for <u>FOf</u>u and <u>FOf</u>- did not reveal any significant differences. Tukeys tests showed that, for FOf+ and FOfo responses combined, the two groups depicted in Table 5 differed from each other on the first administration (i.e., subjects initially giving responses under standard instructions had better pure form quality than subjects initially giving responses under fake instructions) p < .05. Both instructional groups (i.e., standard-first and fake-first) going from fake to standard instructions significantly differed across administrations, ps < .05.

A MANACOVA examining the percentage of good and poor form quality relative to all answers (i.e., X+% and X-%) once again revealed only a significant interaction for initial instructions by administration,

E(2,71)=7.72, p < .01. An ANACOVA showed that, collapsed across psychiatric status, subjects who gave "fake" responses on the first administration had a lower X+% compared to their standard answers on the second administration, E(1,72)=14.85, p < .01, (see Table 5 for means). Likewise, subjects who gave standard responses on the first administration had a higher X+% (see Table 5) compared to the second administration on which they attempted to fake their answers. Hence, the foregoing interaction was significant, E(1,71)=13.90, p < .01, and the differences across administrations, as described, were corroborated by Tukeys tests, both ps < .05. Furthermore, the two groups (i.e., fake-first and standard-first) differed from each other on the first trial; Tukey, p < .05.

An ANACOVA showed similar results for X-% as with X+%. That is, subjects, regardless of psychiatric status, decreased their X-% score when going from fake to standard responses (see Table 5). Likewise, subjects slightly increased their X-% score when going from standard to fake responses; the interaction was significant, E(1,72)=8.98, p < .01. Tukeys tests revealed both instructional groups (standard-first and fake-first) altered their responses across administrations p < .05. The two groups also

significantly differed on the first administration,  $\underline{p}s < .05$ .

Separate MANACOVAs were performed on human and animal content variables. Neither analysis produced significant results. A separate MANACOVA was performed on the remaining content variables which yielded a significant interaction for psychiatric status by administration, E(17, 53) = 1.83, p < .05. Separate univariate tests were conducted for each content variable and only three produced significant results. There was a significant change in responses across administration for both Fire, F(1,73) = 6.62, p < .05, and Food variables,  $\underline{F}(1, 73) = 8.56$ ,  $\underline{p} < .01$  (see Table 3 for means). In addition, for Household, there was a significant main effect for psychiatric status, E(1,71)=4.42, p < .05, showing that the nonpsychiatric group had more of such responses ( $\underline{M}=0.81 \pm 1.15$ ) compared to the psychiatric group ( $\underline{M} = 0.46 \pm 0.76$ ).

Interestingly, when several of the content variables were combined and analyzed as part of the Isolate Ratio, there was a significant psychiatric status by administration interaction, E(1,71)=6.38, p <.01. Tukey's tests, however, did not reveal significant differences among mean comparisons, hence, the

interaction did not appear to be a particularly strong one.

The ANACOVA for WSUM6 (i.e., the sum of all special scores such as DV, INCOM, etc.) revealed a significant main effect for initial instruction, E(1,68)=4.41, p < .05, and a significant interaction for initial instruction by administration, collapsed across psychiatric status, E(1,70) = 12.53, p < .01. No other ANACOVA main effects or interactions were significant. It appears that subjects who gave standard responses on the first administration had a lower WSUM6 score than on the second administration when they gave answers under the fake instructional set (see Table 5 for means). The reverse was true for subjects initially "faking" their The latter group decreased their WSUM6 score responses. on the second administration on which they were to give answers under standard instructions. Tukeys tests revealed that the two groups (i.e., fake or standard instruction first) differed on the first administration for WSUM6, with the "fake" group having a higher score, p < .05. Only the fake-first group, however, significantly changed (i.e., decreased) their WSUM6 score from the first to the second administration.

ANACOVAS on the Adjusted D score, and Lambda produced the same significant interactions relative to

the foregoing analysis. Specifically, regardless of psychiatric status, subjects who gave fake answers on the first administration significantly altered their Adjusted <u>D</u> score on the second administration (see Table 5), E(1,71)=5.38, p < .05. Tukeys tests confirmed this difference, p < .05. In addition and based on Tukeys tests, the fake-first group had a lower Adjusted D score relative to the standard-first group on the first administration, p < .05.

Similarly, for Lambda, individuals who "faked" first had a higher Lambda on the second administration on which they attempted to give "standard" answers (see Table 5), E(1,72)=4.47, p < .05. This finding was corroborated by Tukeys tests, p < .05. No other comparisons were significant.

The ANACOVA for the Egocentricity demonstrated a significant interaction for psychiatric status by initial instruction, collapsed across administrations,  $\mathbf{E}(1,70)=6.52$ ,  $\mathbf{p}$  < .01. Tukeys tests showed that psychiatric patients had a significantly lower Egocentricity score on the standard administration (M=0.25 ± 0.16) relative to the nonpsychiatric subjects (M=0.42 ± 0.16),  $\mathbf{p}$  < .05. No other main effects or interactions were significant.

The ANACOVAs for the Suicide Constellation, Depression Index, and Schizophrenia Index all produced significant interactions for initial instruction by administration. For the Suicide Constellation, E(1,71)=14.90, p < .01, Tukeys tests revealed that the fake-first and standard-first instructional groups differed on the first and second administrations (see Table 5 for means). Furthermore, both groups significantly changed their responses in the expected direction. That is, the standard-first group shifted upward on the second, "faked" trial, and the fake-first group decreased their score on the standard administration, all ps < .05.

For the above-mentioned interaction on the Depression Index, E(1,71)=14.74, p < .01, Tukeys tests showed that the standard-first and fake-first instructional groups differed from each other on both trials (see Table 5), but only the fake-first group significantly changed their responses (i.e., decreased) across administrations, ps < .05. There was also a significant main effect for psychiatric status, E(1,69)=4.65, p < .05. Specifically, the Depression Index was slightly higher for the psychiatric group  $(M=1.22 \pm 0.89)$  relative to the nonpsychiatric group  $(M=1.00 \pm 0.79)$ , collapsed across all other conditions.

There was also a significant main effect for administration,  $\underline{F}(1,71)=7.02$ ,  $\underline{p} < .05$ , demonstrating that, regardless of group constraints, subjects tended to decrease their scores from the first (M=1.26 ± 0.91) to the second administration (M=0.95 ± 0.85).

When examined via Tukeys tests, the interaction for the Schizophrenia Index, E(1,71)=6.93, p < .01, did not prove to be a particularly strong effect. The post-hoc tests revealed only a marginally significant difference between the standard-first and fake-first groups on the first administration, p < .10 (see Table 5).

As previously discussed, individuals may be able to produce changes across instructional sets of a magnitude to yield statistical differences, but these changes may not be of the degree to alter clinical judgments. Hence, the foregoing significant changes across trials were compared to standard deviations for the respective variables as found in Exner's Comprehensive System (1986). This system provides normative data generated from protocols of 600 nonpatient adults and is used in the analysis of individual protocols and the interpretation process. Scores that differ from the normative mean by a standard deviation or more are considered significant and frequently yield different interpretations compared to scores closer to the mean.

It was found that only the significant changes across trials for X+%, X-%, and WSUM6, as previously described, exceeded the magnitude equivalent to a standard deviation or more based on the Exner norms. Hence, it may be said that, although subjects as a whole did significantly alter their responses on many variables per instructional set, there were few changes large enough that might produce changes in clinical judgment.

Judges' Task. Demographic characteristics of judges are displayed in Table 6. In order to ensure that the different sets of protocols was not a significant source of variance, this factor (i.e., stimulus set) was included in the analyses of judges' ratings. Judges' (n=30) ratings as to whether they thought protocols were administered under fake or standard instructions were submitted to a 2 (informed vs. uninformed judges) X 2 (stimulus set) X 2 (psychiatric vs. nonpsychiatric protocol) X 2 (fake or standard protocol) ANOVA. There was no significant effect for stimulus set, hence, it can be said that the different groups of protocols were equivalent.

There was a significant main effect for fake vs. standard protocols,  $\underline{F}(1,26)=8.69$ ,  $\underline{p} < .05$ . The only significant interaction was for psychiatric status by

type of protocol (i.e., fake or standard). That is, judges differentially rated (i.e., 1=given under faked instructions; 7=given under standard instructions) psychiatric and nonpsychiatric protocols when they were given under standard or fake instructions, E(1, 26) = 28.23, p < .01, (see Table 7 for means and standard deviations). Tukeys tests revealed that ratings for the protocols of nonpsychiatric patients given under standard instructions were higher (i.e., judges thought them to be more likely given under standard instructions) than the protocols of nonpsychiatric and psychiatric patients given under fake instructions, ps< .05 and psychiatric patients given under standard instruction, p < .05. No other comparisons were significant. Hence, it appears that judges could distinguish between standard and "faked" protocols of nonpsychiatric patients but were not able to do so between those of psychiatric patients.

To further examine judges' decision making ability in regard to determining the protocols authenticity, they were classified into more and less experienced groups. Judges having more than 10 years of experience with the Rorschach were categorized as being more experienced (n=14) and those having less than 10 years were designated as less experienced (n = 16). An ANOVA

was conducted on their ability to detect faked protocols. The analysis did not reveal any significant results. Hence, experience did not seem to be an important factor affecting the present decision making in regard to differentiating faked from standard protocols.

The judges' ratings (i. e., 1=very important and 7=very unimportant) of various factors affecting their decisions (e.g., content, ratios, etc.) were examined in an omnibus MANOVA. This analysis revealed significant main effects for psychiatric status, E(8,21)=2.55, p <.05, and instructional set (i.e., fake or standard), E(8,21)=3.845, p < .01. The interaction for psychiatric status by instructional set was also significant, E(8,21)=2,87, p < .05. Consequently separate ANOVAs were conducted for each factor (e.g., content, etc.).

Judges rated several indices differentially relative to the protocols identified above (i.e., psychiatric-fake, psychiatric-standard, nonpsychiatricstandard, and nonpsychiatric-fake). For example, it was found that judges said they weighed content more heavily in their decision as to whether a protocol was authentic if the protocol was actually given under standard instructions, E(1,28)=4.29, p < .05, (see Table 8 for means). No other effects were significant for content.

There was, however, a significant main effect showing that judges weighed ratios more heavily in their decision about standard than faked protocols, E(1,28)=8.15, p < .01 (see Table 8 for means).

Form quality (i.e., <u>FO</u>x) was rated as being a more significant determinant in ratings (i.e., determining the authenticity of the protocol) for nonpsychiatric compared to psychiatric protocols, <u>E(1,28)=5.75</u>, <u>p</u> < .05 (see Table 9 for means). Similarly, judges tended to rate the ratios as being more important in determining the authenticity of the psychiatric relative to nonpsychiatric protocols, <u>E(1,28)=13.07</u>, <u>p</u> < .01 (see Table 9 for means).

For the Suicide Constellation, there was a significant main effect for fake vs. standard protocols, E(1,28)=8.93, p < .01, and a significant interaction for psychiatric status by initial instruction, E(1,27)=18.62, p < .05. Judges rated the Suicide Constellation as being more important in determining the authenticity of the faked compared to standard protocols (see Table 8 for means). Furthermore, in regard to the interaction, Tukeys tests revealed that the Suicide Constellation was rated as being more important in making a determination as to the authenticity of the nonpsychiatric, faked protocols relative to the

nonpsychiatric, standard protocols,  $\underline{p}$  < .05 (see Table 7 for means). No other comparisons were significant.

There were no significant findings for location, determinants, special scores, or sequence of responses. Of particular note was the lack of any significant effects for information provided to the judges.

In order to examine how the protocols might differ from each other, a descriptive comparison was made between the psychiatric-standard, psychiatric-fake, nonpsychiatric-fake and nonpsychiatric-standard protocols. Although no statistical comparisons were possible due to the limited number, the protocols did appear to differ on a number of indices. Compared to the nonpsychiatric faked protocols, the nonpsychiatric standard protocols had fewer responses overall and proportionately fewer Blends, more human responses, fewer Blood and Sex responses, fewer Fm and m responses, fewer Color and FC' responses, a lower WSUM6 score, a lower Suicide Constellation score, and better form quality (i.e., X+% and X-%). See Table 10 for means. The psychiatric protocols, on the other hand, were very similar on these indices.

Judges were also asked to rate the protocol as to the level of adjustment it may reflect (i.e., 1=very well adjusted; 7=very maladjusted). Some of the judges,

however, indicated confusion as to whether they were to rate the person's level of adjustment based on the protocol, despite it possibly being faked, or to rate the person "behind" the protocol if they did think it was faked. Hence, it was uncertain as to whether all judges performed the task with the same understanding. Consequently, these ratings were omitted from analysis.

## Discussion

There was substantial evidence demonstrating that subjects apparently can alter their Rorschach responses as a function of instructional set. Subjects who received either standard or "fake" instructions (i.e., . . . "try to appear criminally insane . . .") on the first trial and the opposite instructions on the second one were able to make changes on many indices across administrations. To summarize, the changes across administrations for at least one of the instructional groups (i.e., standard-first vs. fake-first) achieved statistical significance for the following variables: 1) DQ+; DQo 2) FQx+ and FQxo combined; FQxu and FQxcombined, 3) FOf+ and FOfo combined, 4) X+%; X-%, 5) Lambda, 6) M+ and Mo combined, 7) Adjusted D, 8) WSUM6, 9) Depression Index, and 10) Suicide Constellation.

Most of the changes for the foregoing variables were in a direction that might be expected, given the

type of instruction. For example, individuals who received instructions to "fake" their responses on the first administration significantly lowered their WSUM6 score on the second, standard-instruction trial which would make them appear less pathological. Similarly, individuals initially receiving standard instructions significantly increased their score on the Suicide Constellation when giving responses under fake instructions. At first glance, however, it appears that the Adjusted D score changed in the opposite direction across administrations than might be expected (i.e., the standard-first group had a lower Adjusted D score on the second administration in which they were asked to "fake" than on the first administration on which they were to give standard responses; the fake-first group had a higher Adjusted D score on the second administration when they were to give "standard" responses than on the first trial when they were to give "fake" responses).

The Adjusted D is a recalculation of the D score and attempts to provide information about a person's perceived demands and coping resources by extracting variables that are sensitive to transient stress (i.e., all but one of the inanimate movement and shading variables are omitted in the calculation). A possible explanation for the subjects' Adjusted D score being higher per the "standard" than "fake" instructions may be that when a person is asked to give their "true" responses, it may produce heightened situational anxiety. This anxiety may result in a greater number of inanimate movement and shading responses than under "faked" instructions, thereby causing a higher Adjusted D score.

Table 5 contains other similar findings (i.e., differential changes across administrations per instructional set) which are particularly striking in that it is assumed that subjects would not know on which variables they should alter their responses to comply with the instructional set. In fact, previous studies investigating similar questions in regard to malingering have found subjects to focus predominantly on changing content, although most of the prior work has not involved the use of the Exner Comprehensive Scoring System.

It is also important to note that there were indices which were not susceptible to change contingent upon instruction. Most of the single determinants (i.e., shading variables; color) were not significantly altered across administrations. It is also important to underscore that, for most variables that were significantly changed across trials, the magnitude of

difference was less than the standard deviation for those indices relative to normative data for nonpsychiatric individuals (Exner, 1986). The only exceptions were for X+%, X-%, and WSUM6. Hence, only for the latter variables was the change per instructional set perhaps large enough to alter clinical judgment, as previously explained.

Previous studies examining the ability of subjects to change their Rorschach responses per instructional set has been mixed. There does not appear to be a consistent pattern in methodology that covaries with success in changing scores. Nevertheless, there was one methodological difference in the present study relative to many prior ones in that productivity (i.e., R) was controlled for statistically in measuring changes. Hence, many of the prior studies may have found more significant differences if productivity was held constant across administrations.

Another methodological difference relative to previous studies concerns the type of instructions used to promote malingering. Previous studies, as noted in the introduction, have ranged from telling the subject to merely "misrepresent" themselves to educating them as to the role of being a schizophrenic patient. Obviously, the difference in instructional sets may be

an important variable in influencing subjects' responding and warrants further investigation. Of particular importance in future research would be to more closely examine the nature of subjects' assumed strategies via post-experimental inquiries. Such an approach might identify different strategies that could then be contrasted and compared experimentally.

In addition to examining subjects' ability to alter their responses across administration, it is also important to look at between group differences (i.e., how subjects differed in regard to responses with respect to fake vs. standard instructions). That is, for what indices are there between-group differences as a function of receiving either standard or fake instructions? Most of these differences occurred on the first administration, as seen in Table 5. For example, individuals giving "standard" responses first had higher scores for <u>DO</u>O, <u>FO</u>x+ and <u>FO</u>xO, <u>FO</u>f+ and <u>FO</u>fO, and <u>X</u>+% compared to subjects giving "fake" responses first, as might be expected. Conversely, the standard-first subjects, on the first trial, had lower scores for FOxu and <u>FO</u>x-, <u>X</u>-%, WSUM6, Suicide Constellation, and Depression Index relative to the fake-first group. There were related between-group differences on the second administration, as seen in Table 5.

Although there were several statistical differences between the fake- and standard-first protocols on a number of indices, scores on the first trial for fakefirst subjects do not appear to be distinctive enough to set them apart from ordinary protocols. That is, the group scores for the fake-first group on the first administration are essentially consistent with a psychiatric profile. Hence, although many scores between fake- and standard-first groups are different, the indices for the group might not be detected as unauthentic.

Psychiatric status did not appear to be a significant factor affecting results. There were only three indices, the Egocentricity and Depression Indexes, and the Human Movement determinant that yielded differential findings between the psychiatric and nonpsychiatric groups. It is not surprising that that psychiatric patients, may be more depressed than the nonpsychiatric group and that their emotional state could not be overridden by instructional sets. It is also not unusual that the psychiatric group would have lower Egocentricity scores compared to the nonpsychiatric group in that Exner norms for this index is lower for psychiatric than for nonpsychiatric populations (Exner, 1986).

Perhaps of more importance in regard to psychiatric status is the finding that nonpsychiatric subjects were able to alter human movement variables (i.e., M+ and Mo combined) across administrations (i.e., going from the standard-first administration to the fake-second administration) to a greater degree compared to the psychiatric subjects. This finding supports the original hypothesis (i.e., ... "nonpsychiatric subjects will be able to alter their responses to a greater degree across administrations as compared to the psychiatric subjects").

Nonpsychiatric subjects may have been able to give "good" human movement responses and then, on the second trial, decrease the frequency of such responses due to their level of ego functioning. As stated previously, nonpsychiatric subjects' may have a greater level of boundary differentiation than psychiatric subjects which allows them more flexibility and adaptability in responding (Kernberg, 1967; 1970). In other words, it may be that nonpsychiatric subjects were able to "take distance" from the inkblots, and therefore, alter their human movement responses on the second administration under the "faked" condition.

Based on the foregoing reasoning, however, the question remains as to why the nonpsychiatric subjects

were not able to successfully alter their human movement responses across administrations when they initially received fake rather than standard instructions. That is, why was the nonpsychiatric group unsuccessful in altering human movement (M+ and Mo) responses across administrations when asked to "fake" on the first trial and then, alternatively, told to give "standard" responses on the second trial? After all, subjects, regardless of psychiatric status, were able to alter their responses across trials on a number of other indices. A possible explanation for this finding may gleaned from object relations theory.

There is evidence to suggest that the human movement variable is a measurement of object representation and interpersonal relationships (Blatt, 1974; Mayman, 1968). If this is true, then it is plausible to assume that because the "interpersonal pull" of the human movement variable is so strong, the duration between administrations in this study might not have allowed enough time for the nonpsychiatric subjects to adequately shore up their defenses in order to give good form quality human movement responses on the second administration. In other words, it may be a more difficult task to alter human movement responses across administrations when nonpsychiatric subjects' first

"ruin" human movement responses and then try to reconstitute to give human movement responses with good form quality than it is to give good responses initially and then try to to ruin them. It would be interesting to see if nonpsychiatric subjects', initially given fake instructions, would differentially alter their human movement responses per instructional set as a function varying the test-retest interval. That is, could nonpsychiatric subjects alter their responses to a greater degree if there were a two hour time delay, 24 hour time delay, or a week delay or more?

Based on the foregoing reasoning, it also makes sense that psychiatric subjects would have a limited capacity for "good" object relations, thereby making it difficult for them to alter their human movement responses per instructional set. If one does not have the capacity for good object representation, how could one produce the derivative of that construct on the Rorschach? In addition, it seems tenable that because this variable has a strong interpersonal valence, psychiatric patients may have experienced a "loss of boundaries" and failure in ego functioning which would not permit them to take proper "distance" from the inkblot. The result may have been their inability to

alter human movement responses even to a marginal degree, which was the case in this study.

With the exception of the human movement variable, there were no statistical differences between psychiatric and nonpsychiatric subjects in their ability to alter responses as a function of instructions. That is, contrary to the original hypothesis, psychiatric subjects were not found to differ from nonpsychiatric subjects in their ability to change responses across instructional set. This finding is not consistent with previous literature which has demonstrated psychiatric patients to be less adept than nonpsychiatric subjects in modifying Rorschach responses (Fabricant, 1953).

The lack of more significant effects for psychiatric status may be the result of not controlling for the psychiatric patients' level of dysfunction. That is, in the present study, there was no assurance that the inpatient participants were psychologically impaired enough to be distinctive relative to nonpsychiatric subjects. Future studies in this regard may benefit from establishing the dysfunctional level of psychiatric patients via psychometric and/or clinical ratings. Specifically, it would be advisable to give psychiatric patients an MMPI, GAS rating, and/or a clinical interview in order to ensure their level of

psychopathology is severe and uniform enough to warrant inclusion in the psychiatric subject group.

In regard to psychiatric status, it is worth noting that three of the four subjects' data who were excluded from the analyses, as previously mentioned, were in the psychiatric group. Their expressed confusion about the task may be a reflection of an inability to alter their responses due to their level of psychological dysfunction and not merely the result of a lack of clarity as to their role in the experiment. That is, perhaps the patients' expressed confusion was a function of their "loss of boundaries" due to their psychiatric status. Unfortunately, the examiners did not make specific notation that might be helpful in clarifying this issue.

Statistical results aside, the controversy that exists in the literature pertaining to the susceptibility of the Rorschach to malingering seems to suffer from a need for clarification. Specifically, how would researchers ever know if a person had malingered their Rorschach responses unless there existed the person's "true" Rorschach responses to which to compare or some type of universal "malingered profile" to be used as a referent. If it is possible for a group of subjects to change their responses, however, it seems reasonable to assume that, if so desired, one could produce responses that might not be representative of their "true" protocol. The present study has demonstrated that, as a group, subjects were able to alter their responses within a short interval of time to an extent that achieved statistical significance. Hence, the present study suggests that a repeatedmeasures design is a viable methodology in terms of looking at subjects' ability to alter responses across administration.

Based on the foregoing commentary and results of the first study (i.e., subjects' responses per instructional set), it appears difficult to say what might be helpful information to clinical experts in detecting an individual's malingering on the Rorschach. Nevertheless, it is encouraging that, on the second study, judges were able to significantly differentiate between faked and standard protocols for nonpsychiatric subjects. Based on an examination of protocols, it appears that judges may have (knowingly or unknowingly) attended to differences in the number of blood and sex That is, the nonpsychiatric, faked protocols responses. appeared to have significantly more of these types of responses than the nonpsychiatric standard protocols (see Table 10). In addition, the nonpsychiatric faked

protocols had more special scores than the nonpsychiatric standard protocols (see the WSUM6 score in Table 10). Hence, consistent with previous research (Feldman & Graley, 1954), judges may have attended to response categories that made the nonpsychiatric faked protocols appear more "dramatic" than the nonpsychiatric standard protocols.

It is surprising, therefore, that the judges did not rate Special Scores (e.g., Incoms, etc.) as being differentially helpful in making their decisions concerning authenticity. Consistent with the descriptive analysis of the protocols utilized in the judges' task, however, experts did note that content contributed significantly to their decision making to the point of reaching statistical significance. A comparison of psychiatric protocols (i.e., psychiatric standard and psychiatric fake) in Table 10 shows that they were much less distinctive from each other relative to the foregoing indices that distinguished nonpsychiatric protocols. Hence, the judges may have had more difficulty discerning the authenticity between psychiatric protocols due to a lack of contrast between them. Consequently, the demand characteristics of the task (i.e., allowing judges to compare and contrast protocols) may have significantly influenced their

authenticity ratings in a different way than if the judges were given a single protocol.

In addition to content, judges differentially weighted the Suicide Constellation and ratios as being important, when their ratings of standard and faked protocols were compared. To clarify, without knowledge of whether a protocol was actually standard or fake, judges said they placed differential importance on the Suicide Constellation and ratios when making decisions as to the authenticity of the protocols. It must be realized that what a clinician says he or she attends to may be entirely different than to what information they actually utilize in their decision making. That is, judges may overrate the complexity of their decisionmaking and say they weigh various information heavily, when, in actuality, they are only attending to a smaller set of data. One way to more closely examine judges' decision making is to make comparisons between what judges say is important in differentiating faked from standard protocols and what indices statistically distinguish between such protocols. Unfortunately, the small number of protocols used in the present study limits any type of discriminant analysis of this sort. Furthermore, given the prohibitive amount of work required of volunteer judges, it is unlikely this

approach will prove practical in future research endeavors.

Continuing with the discussion of the judges' decision-making, it is surprising that non-Rorschach information (e.g., demographics, etc.) about the subject or differential clinical experience with the Rorschach did not appear to have a significant effect on judges' ability to detect faking. It is possible, of course, that there were too few protocols utilized for such information to have a significant impact upon decisionmaking. If the type of information used in the present study is not helpful in differentiating between faked and standard protocols, it may be asked what type of non-Rorschach input might be valuable? It would be interesting for future research to examine the effect of being able to view the examinee providing responses. Specifically, the examinees' nonverbal behavior (e.g., body posture, voice intonation, etc.) may prove to be critical in assisting clinicians to discern malingered protocols.

Finally in regard to judges' decision-making, the external validity of the present task must be examined. The present study did show that judges could successfully discriminate between faked and standard protocols for nonpsychiatric subjects. It must be

pointed out, however, that judges were sensitized to the possibility that the protocols they were examining may have been faked. Hence, this may have created implicit base-rate information, and made their task much easier than when a clinician may, unknowingly, encounter an examinee who is malingering. It may be helpful for future research to examine the effects of base-rate information on judges' (e.g., informing them the ratio of faked to standard protocols, etc.) ability to detect unauthentic protocols and further scrutinize what types of information are helpful to clinicians in making these decisions.

In the meantime, the present study offers some helpful information that may assist clinicians in detecting malingering on the Rorschach. Although the present study demonstrated that subjects could alter their responses to a point that achieved statistical significance, on only a few indices (i.e., X+%, X-%, and WSUM6) did the magnitude of change match or exceed a standard deviation based on Exner norms for the respective indices. Statistically, it appears that form quality and elevated Special Scores may help most in raising doubt as to the authenticity of a protocol. In terms of judges' own descriptions of their decision making, it appears that they focus on content, the

Suicide Constellation, and ratios in determining the authenticity of a protocol. The upshot for the practicing clinician is to be alert and beware.
Demographic Characteristics of Subjects (Means and Standard Deviations)

	Means	Standard Deviations
	<u>Psychiatric</u>	Nonpsychiatric
Age	43.75 <u>+</u> 14.03	48.82 <u>+</u> 17.76
IQ	101.22 <u>+</u> 6.80	111.60 <u>+</u> 11.40*
Education	11.71 <u>+</u> 1.28	13.37 <u>+</u> 2.13*
Marital		
married	17	27
divorced	10	5
widowed	2	0
single	11	8
Sex		
male	39	39
female	1	1
Employment		
unemployed	22	2
employed	9	28
disabled	3	3
retired	6	7

Mean Scores and Standard Deviations per Subject

<u>Condition</u>

Variable		Administration 1	Administration 2
R	PS	19.50 <u>+</u> 6.22	14.83 <u>+</u> 5.19
	PF	14.95 <u>+</u> 5.03	15.26 <u>+</u> 6.31
	NPS	17.95 <u>+</u> 9.47	15.10 <u>+</u> 10.63
	NPF	$17.20 \pm 4.27$	16.40 <u>+</u> 4.41
Zf	PS	10.53 <u>+</u> 3.48	8.59 <u>+</u> 2.78
	PF	9.94 <u>+</u> 4.16	11.00 <u>+</u> 3.74
	NPS	11.00 <u>+</u> 3.74	8.84 <u>+</u> 3.72
	NPF	11.60 <u>+</u> 4.50	9.20 <u>+</u> 3.24
ZSUM	PS	30.29 <u>+</u> 12.67	25.22 <u>+</u> 11.46
	PF	31.06 <u>+</u> 16.56	25.64 <u>+</u> 11.94
	NPS	35.03 <u>+</u> 15.23	28.64 <u>+</u> 12.41
	NPF	36.42 <u>+</u> 15.89	28.39 <u>+</u> 11.16

Table 2 (continued)

<u>Variable</u>		Administration 1	<u>Administration 2</u>
Zd	PS	$-1.82 \pm 4.06$	0.41 <u>+</u> 4.73
	PF	$0.17 \pm 4.30$	-1.11 <u>+</u> 5.44
	NPS	$-1.32 \pm 4.76$	1.69 <u>+</u> 4.90
	NPF	$-0.35 \pm 5.82$	0.15 <u>+</u> 3.58
POP	PS	4.50 <u>+</u> 2.21	2.61 <u>+</u> 2.30
	PF	2.65 <u>+</u> 1.64	3.26 <u>+</u> 1.41
	NPS	4.40 <u>+</u> 2.41	2.37 <u>+</u> 2.27
	NPF	4.71 <u>+</u> 2.28	2.41 <u>+</u> 2.40
Pairs	PS	4.85 <u>+</u> 3.41	3.11 <u>+</u> 2.95
	PF	4.10 <u>+</u> 2.43	4.58 <u>+</u> 3.25
	NPS	7.35 <u>+</u> 6.29	6.00 ± 6.69
	NPF	7.18 <u>+</u> 6.49	5.82 <u>+</u> 6.97
#Blends	PS	3.75 <u>+</u> 2.97	$2.89 \pm 1.84$
	PF	2.65 <u>+</u> 2.39	2.47 <u>+</u> 1.77
	NPS	3.55 <u>+</u> 2.60	3.26 <u>+</u> 2.86
	NPF	3.18 <u>+</u> 2.55	3.12 <u>+</u> 3.00
W	PS	8.78 <u>+</u> 3.69	7.72 <u>+</u> 3.20
	PF	8.05 ± 3.60	6.74 <u>+</u> 3.60
	NPS	7.95 <u>+</u> 2.76	6.63 <u>+</u> 1.98
	NPF	8.80 ± 3.74	7.10 ± 2.63

Table 2 (continued)

<u>Variable</u>		Administration 1	Administration 2
D	PS	8.50 <u>+</u> 6.07	5.72 <u>+</u> 4.14
	PF	5.53 <u>+</u> 4.07	7.63 <u>+</u> 5.07
	NPS	8.58 <u>+</u> 8.04	7.16 <u>+</u> 8.13
	NPF	7.10 ± 3.49	7.85 <u>+</u> 3.96
Dd	PS	$1.22 \pm 1.48$	0.94 <u>+</u> 1.21
	PF	0.95 <u>+</u> 1.43	0.74 <u>+</u> 1.45
	NPS	1.11 <u>+</u> 1.94	0.84 ± 1.89
	NPF	$1.15 \pm 2.03$	0.87 <u>+</u> 1.46
S	PS	2.61 <u>+</u> 1.85	1.78 <u>+</u> 1.70
	PF	$2.26 \pm 2.40$	1.16 <u>+</u> 1.64
	NPS	1.63 <u>+</u> 2.11	1.58 <u>+</u> 2.84
	NPF	2.05 <u>+</u> 2.26	1.55 <u>+</u> 1.70
Н	PS	1.89 <u>+</u> 1.97	1.72 <u>+</u> 1.78
	PF	1.68 <u>+</u> 2.36	1.68 <u>+</u> 1.53
	NPS	2.32 ± 1.38	1.68 ± 1.33
	NPF	2.15 <u>+</u> 1.72	2.20 <u>+</u> 1.73

Table 2 (continued)

<u>Variable</u>		<u>Administration 1</u>	Administration 2
(H)	PS	0.83 <u>+</u> 1.15	0.72 <u>+</u> 0.96
	PF	0.58 <u>+</u> 0.61	0.47 <u>+</u> 0.61
	NPS	0.68 <u>+</u> 1.11	0.95 <u>+</u> 1.27
	NPF	$0.80 \pm 1.06$	0.50 ± 0.68
Hd	PS	0.72 <u>+</u> 0.96	0.44 <u>+</u> 0.62
	$\mathbf{PF}$	0.47 <u>+</u> 0.61	0.79 <u>+</u> 1.08
	NPS	0.95 <u>+</u> 1.27	0.63 <u>+</u> 1.06
	NPF	$0.50 \pm 0.69$	$0.90 \pm 0.71$
(Hd)	PS	0.56 <u>+</u> 1.89	0.50 <u>+</u> 1.65
	PF	$0.16 \pm 0.37$	$0.16 \pm 0.50$
	NPS	$0.21 \pm 0.53$	0.05 <u>+</u> 0.23
	NPF	0.55 ± 1.64	0.10 <u>+</u> 0.31
A	PS	6.72 <u>+</u> 3.82	4.78 <u>+</u> 3.32
	PF	5.39 <u>+</u> 2.98	6.16 <u>+</u> 3.55
-	NPS	5.95 <u>+</u> 2.57	4.95 <u>+</u> 4.22
	NPF	5.55 <u>+</u> 2.14	5.80 <u>+</u> 2.67

<u>Variable</u>		Administration 1	Administration 2
(A)	PS	0.39 <u>+</u> 0.61	0.39 <u>+</u> 0.61
	PF	0.58 ± 0.96	0.53 ± 0.61
	NPS	0.53 <u>+</u> 0.70	0.79 <u>+</u> 0.98
	NPF	0.70 <u>+</u> 0.92	0.55 <u>+</u> 0.76
Ad	PS	1.67 <u>+</u> 1.81	0.89 ± 1.23
	PF	1.37 <u>+</u> 1.50	1.47 <u>+</u> 1.50
	NPS	1.63 <u>+</u> 1.12	1.16 ± 1.21
	NPF	1.30 <u>+</u> 1.17	1.55 <u>+</u> 1.28
(Ad)	PS	0.56 <u>+</u> 0.24	0.17 <u>+</u> 0.38
	PF	0.53 <u>+</u> 0.23	0.10 <u>+</u> 0.31
	NPS	$0.00 \pm 0.00$	0.53 <u>+</u> 0.23
	NPF	$0.00 \pm 0.00$	0.00 <u>+</u> 0.00
Ab	PS	0.15 <u>+</u> 0.37	0.39 <u>+</u> 0.61
	PF	0.15 ± 0.49	0.05 ± 0.23
	NPS	0.15 <u>+</u> 0.59	0.16 <u>+</u> 0.50
	NPF	0.18 <u>+</u> 0.53	0.18 <u>+</u> 0.53

Table 2 (continued)

<u>Variable</u>		Administration 1	Administration 2
Al	PS	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	PF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPS	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPF	0.00 <u>+</u> 0.00	$0.00 \pm 0.00$
An	PS	0.50 <u>+</u> 1.04	0.33 <u>+</u> 0.59
	PF	0.58 <u>+</u> 0.69	0.74 <u>+</u> 1.56
	NPS	0.58 <u>+</u> 0.69	0.63 <u>+</u> 0.89
	NPF	0.80 <u>+</u> 1.14	0.45 <u>+</u> 0.94
Art	PS	0.11 <u>+</u> 0.32	0.28 <u>+</u> 0.57
	PF	0.21 <u>+</u> 0.53	0.05 <u>+</u> 0.23
	NPS	0.21 <u>+</u> 0.42	0.26 <u>+</u> 0.93
	NPF	0.10 <u>+</u> 0.45	0.45 <u>+</u> 0.69
Ау	PS	0.11 <u>+</u> 0.32	0.17 <u>+</u> 0.51
	PF	0.00 <u>+</u> 0.00	0.53 ± 0.23
	NPS	0.32 <u>+</u> 0.75	0.26 <u>+</u> 0.56
	NPF	0.10 <u>+</u> 0.31	0.40 <u>+</u> 0.82

Variable		Administration 1	Administration 2
Bl	PS	0.28 <u>+</u> 0.75	0.83 ± 1.04
	PF	0.95 <u>+</u> 0.98	0.53 <u>+</u> 0.84
	NPS	$0.21 \pm 0.54$	0.89 <u>+</u> 1.15
	NPF	$1.20 \pm 1.20$	0.15 <u>+</u> 0.49
Bt	PS	1.72 <u>+</u> 1.84	1.28 <u>+</u> 1.90
	PF	$0.53 \pm 1.02$	0.95 <u>+</u> 1.27
	NPS	1.05 <u>+</u> 1.50	0.58 <u>+</u> 1.17
	NPF	1.30 <u>+</u> 1.56	1.05 <u>+</u> 1.40
Cg	PS	0.44 <u>+</u> 0.70	0.33 <u>+</u> 0.59
	PF	0.21 <u>+</u> 0.42	0.21 <u>+</u> 0.53
	NPS	0.63 ± 0.89	0.37 <u>+</u> 0.60
	NPF	0.75 <u>+</u> 0.79	0.35 <u>+</u> 0.59
Cl	PS	0.28 <u>+</u> 0.67	0.22 <u>+</u> 0.55
	PF	0.05 <u>+</u> 0.23	0.16 <u>+</u> 0.37
	NPS	$0.10 \pm 0.31$	0.10 <u>+</u> 0.31
	NPF	0.40 ± 0.68	0.20 ± 0.41

<u>Variable</u>		Administration 1	Administration 2
Ex	PS	0.61 <u>+</u> 0.85	$0.33 \pm 0.59$
	PF	0.26 <u>+</u> 0.73	$0.10 \pm 0.31$
	NPS	0.16 <u>+</u> 0.37	$0.21 \pm 0.42$
	NPF	0.45 ± 0.83	$0.22 \pm 0.48$
Fi	PS	0.44 <u>+</u> 0.62	$0.11 \pm 0.32$
	PF	0.32 <u>+</u> 0.82	$0.10 \pm 0.31$
	NPS	0.42 <u>+</u> 0.61	$0.21 \pm 0.53$
	NPF	0.55 <u>+</u> 0.60	$0.30 \pm 0.73$
Fd	PS	0.00 <u>+</u> 0.00	$0.28 \pm 0.57$
	PF	0.05 <u>+</u> 0.23	0.21 <u>+</u> 0.42
	NPS	0.16 <u>+</u> 0.50	$0.10 \pm 0.46$
	NPF	0.15 <u>+</u> 0.37	0.45 <u>+</u> 0.83
Ge	PS	0.06 ± 0.24	$0.11 \pm 0.32$
	PF	0.05 <u>+</u> 0.23	$0.00 \pm 0.00$
	NPS	0.26 <u>+</u> 0.56	0.16 <u>+</u> 0.50
	NPF	0.00 <u>+</u> 0.00	$0.00 \pm 0.00$

<u>Variable</u>		Administration 1	Administration 2
Hh	PS	0.67 ± 0.77	0.56 <u>+</u> 0.98
	PF	$0.26 \pm 0.56$	0.37 <u>+</u> 0.68
	NPS	1.05 <u>+</u> 1.35	0.79 <u>+</u> 1.27
	NPF	0.65 <u>+</u> 0.81	0.75 <u>+</u> 1.12
Ls	PS	0.28 <u>+</u> 0.75	0.33 ± 0.69
	PF	0.42 <u>+</u> 0.61	0.53 <u>+</u> 0.84
	NPS	0.53 <u>+</u> 0.77	0.26 <u>+</u> 0.45
	NPF	0.50 <u>+</u> 0.76	0.80 <u>+</u> 1.15
Na	PS	1.00 <u>+</u> 2.40	0.50 <u>+</u> 0.98
	PF	0.37 <u>+</u> 1.01	0.42 <u>+</u> 0.77
	NPS	0.58 <u>+</u> 1.02	0.26 <u>+</u> 0.73
	NPF	0.55 <u>+</u> 0.83	0.40 <u>+</u> 0.75
Sc	PS	0.56 <u>+</u> 1.04	0.17 <u>+</u> 0.38
	PF	0.32 <u>+</u> 0.75	0.21 <u>+</u> 0.42
	NPS	0.79 <u>+</u> 1.44	0.42 <u>+</u> 1.39
	NPF	0.45 <u>+</u> 0.83	$0.20 \pm 0.52$

<u>Variable</u>		Administration 1	<u>Administration 2</u>
Sx	PS	$0.33 \pm 0.59$	0.17 <u>+</u> 0.51
	PF	0.68 ± 1.56	0.84 <u>+</u> 2.41
	NPS	0.16 ± 0.37	0.47 <u>+</u> 0.90
	NPF	0.75 <u>+</u> 1.74	$0.15 \pm 0.37$
Ху	PS	0.28 <u>+</u> 0.75	$0.17 \pm 0.38$
	PF	0.05 <u>+</u> 0.23	- 0.00 <u>+</u> 0.00
	NPS	0.05 <u>+</u> 0.23	0.05 <u>+</u> 0.23
	NPF	0.15 <u>+</u> 0.37	0.05 <u>+</u> 0.22
DQ+	PS	2.56 <u>+</u> 2.23	3.00 <u>+</u> 2.54
	PF	4.84 <u>+</u> 3.52	3.10 <u>+</u> 2.75
	NPS	5.58 <u>+</u> 4.61	5.89 <u>+</u> 4.72
	NPF	5.70 <u>+</u> 3.73	3.35 <u>+</u> 2.28
DQv/+	PS	0.89 <u>+</u> 2.08	$0.33 \pm 0.84$
	PF	0.58 <u>+</u> 1.17	- 0.26 <u>+</u> 0.73
	NPS	0.32 ± 0.75	0.10 <u>+</u> 0.31
	NPF	0.65 <u>+</u> 0.87	0.34 <u>+</u> 0.81

Table 2 (continued)

<u>Variable</u>		<u>Administration 1</u>	<u>Administration 2</u>
DQo	PS	13.56 <u>+</u> 7.17	8.44 <u>+</u> 5.48
	PF	7.37 <u>+</u> 4.57	10.84 <u>+</u> 7.24
	NPS	10.63 <u>+</u> 5.54	7.05 <u>+</u> 6.26
	NPF	9.45 <u>+</u> 5.33	10.90 <u>+</u> 4.04
DQv	PS	2.17 <u>+</u> 2.91	2.17 <u>+</u> 2.68
	PF	1.79 <u>+</u> 1.69	1.05 ± 1.31
	NPS	1.16 <u>+</u> 1.77	1.50 <u>+</u> 1.22
	NPF	1.40 <u>+</u> 1.60	1.43 <u>+</u> 1.71
M+	PS	0.05 <u>+</u> 0.22	0.00 <u>+</u> 0.00
	PF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPS	0.00 <u>+</u> 0.00	0.00 <u>+</u> 0.00
	NPF	0.00 <u>+</u> 0.00	$0.00 \pm 0.00$
Мо	PS	1.40 <u>+</u> 1.35	1.33 <u>+</u> 1.78
	PF	0.84 <u>+</u> 1.30	0.95 <u>+</u> 0.78
	NPS	$2.74 \pm 2.40$	1.32 <u>+</u> 1.60
	NPF	1.15 <u>+</u> 0.99	1.45 <u>+</u> 0.89

Table 2 (continued)

<u>Variable</u>		<u>Administration 1</u>	<u>Administration 2</u>
Mu	PS	0.25 <u>+</u> 0.55	0.28 <u>+</u> 0.57
	PF	$0.20 \pm 0.41$	0.10 <u>+</u> 0.31
	NPS	$0.10 \pm 0.31$	$0.21 \pm 0.42$
	NPF	0.06 <u>+</u> 0.24	0.18 ± 0.39
M-	PS	0.50 <u>+</u> 0.83	0.67 <u>+</u> 0.69
	PF	0.90 <u>+</u> 1.52	0.84 <u>+</u> 1.34
	NPS	0.85 <u>+</u> 2.45	0.84 <u>+</u> 0.83
	NPF	1.00 <u>+</u> 2.65	0.88 <u>+</u> 0.86
FQx+	PS	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	PF	$0.00 \pm 0.00$	0.00 <u>+</u> 0.00
	NPS	0.05 <u>+</u> 0.22	0.00 <u>+</u> 0.00
	NPF	$0.00 \pm 0.00$	0.00 ± 0.00
FQxo	PS	9.55 <u>+</u> 3.99	6.89 <u>+</u> 4.84
	PF	6.40 <u>+</u> 3.15	7.05 <u>+</u> 2.68
	NPS	10.05 <u>+</u> 4.03	7.05 <u>+</u> 2.67
	NPF	10.47 <u>+</u> 4.18	6.59 <u>+</u> 4.96

Table 2 (continued)

<u>Variable</u>		Administration 1	Administration 2
FQxu	PS	3.30 ± 2.67	$2.06 \pm 1.80$
	PF	2.35 <u>+</u> 1.75	3.10 <u>+</u> 3.45
	NPS	2.35 <u>+</u> 2.08	2.05 <u>+</u> 1.90
	NPF	2.29 <u>+</u> 2.08	2.12 <u>+</u> 1.93
FQx-	PS	5.25 <u>+</u> 2.97	5.00 <u>+</u> 1.94
	PF	4.95 <u>+</u> 2.76	5.05 ± 3.81
	NPS	5.30 <u>+</u> 5.79	5.26 <u>+</u> 5.97
	NPF	5.35 <u>+</u> 6.26	5.59 <u>+</u> 6.25
FQf+	PS	$0.00 \pm 0.00$	0.00 <u>+</u> 0.00
	PF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPS	0.00 <u>+</u> 0.00	0.00 <u>+</u> 0.00
	NPF	0.00 <u>+</u> 0.00	$0.00 \pm 0.00$
FQfo	PS	4.06 <u>+</u> 1.89	2.78 <u>+</u> 1.77
	PF	2.16 <u>+</u> 1.92	2.68 <u>+</u> 1.53
	NPS	2.68 <u>+</u> 2.08	1.95 <u>+</u> 1.54
	NPF	1.80 <u>+</u> 1.67	3.20 <u>+</u> 1.79

Variable		Administration 1	<u>Administration 2</u>
FQfu	PS	$1.22 \pm 1.00$	0.67 <u>+</u> 1.08
	PF	$1.00 \pm 1.25$	1.53 <u>+</u> 1.68
	NPS	0.89 <u>+</u> 1.41	0.68 ± 1.06
	NPF	0.95 <u>+</u> 1.32	1.25 <u>+</u> 1.33
		1	
FQf-	PS	1.58 <u>+</u> 1.71	1.56 <u>+</u> 1.54
	PF	1.55 <u>+</u> 1.60	$2.00 \pm 2.62$
	NPS	1.61 <u>+</u> 1.48	1.42 <u>+</u> 1.71
	NPF	1.56 <u>+</u> 1.54	1.10 ± 1.
М	PS	2.10 <u>+</u> 1.80	2.11 ± 2.05
	PF	1.75 <u>+</u> 2.12	$2.05 \pm 1.84$
	NPS	2.85 <u>+</u> 1.66	2.89 ± 3.30
	NPF	2.88 <u>+</u> 1.49	2.65 ± 3.33
FM	PS	3.05 ± 2.78	$2.11 \pm 2.30$
	PF	2.40 <u>+</u> 1.50	$2.58 \pm 2.04$
	NPS	3.45 <u>+</u> 2.23	$2.10 \pm 1.56$
	NPF	$3.00 \pm 1.84$	1.94 <u>+</u> 1.56

<u>Variable</u>		Administration 1	Administration 2
m	PS	1.60 ± 2.35	1.44 <u>+</u> 1.25
	PF	$1.20 \pm 1.40$	0.58 <u>+</u> 0.84
	NPS	$1.60 \pm 2.54$	1.26 <u>+</u> 1.69
	NPF	1.71 ± 2.73	$1.29 \pm 1.76$
С	PS	$0.30 \pm 0.80$	0.50 <u>+</u> 0.79
	PF	0.30 <u>+</u> 0.57	0.42 <u>+</u> 0.84
	NPS	0.35 <u>+</u> 0.74	0.37 <u>+</u> 0.83
	NPF	$0.41 \pm 0.75$	0.41 <u>+</u> 0.87
Cn	PS	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	PF	$0.00 \pm 0.00$	0.00 ± 0.00
	NPS	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
CF	PS	1.40 ± 1.43	1.11 <u>+</u> 1.32
	PF	1.65 <u>+</u> 1.56	1.10 <u>+</u> 0.99
	NPS	$1.60 \pm 1.70^{\circ}$	1.32 <u>+</u> 1.20
	NPF	1.59 <u>+</u> 1.84	1.23 ± 1.25

Table 2 (continued)

<u>Variable</u>	. 2	Administration 1	<u>Administration 2</u>
FC	PS	1.65 <u>+</u> 1.75	0.94 <u>+</u> 1.00
	PF	0.80 <u>+</u> 1.06	0.95 ± 1.08
	NPS	1.35 <u>+</u> 1.23	$1.05 \pm 1.35$
	NPF	1.41 <u>+</u> 1.18	1.06 ± 1.39
С'	PS	0.05 <u>+</u> 0.22	$0.11 \pm 0.32$
	PF	0.05 <u>+</u> 0.22	$0.00 \pm 0.00$
	Ν	0.00 <u>+</u> 0.00	0.05 ± 0.23
	NPF	0.00 <u>+</u> 0.00	0.06 <u>+</u> 0.24
C'F	PS	$0.10 \pm 0.31$	0.17 <u>+</u> 0.38
	PS	0.35 <u>+</u> 0.74	0.21 <u>+</u> 0.53
	NPS	$0.20 \pm 0.52$	0.26 <u>+</u> 0.93
	NPF	$0.23 \pm 0.56$	0.23 <u>+</u> 0.97
FC'	PS	1.10 <u>+</u> 1.37	0.90 <u>+</u> 1.08
	PF	$1.00 \pm 1.17$	1.58 <u>+</u> 1.57
	NPS	0.95 <u>+</u> 1.05	1.16 <u>+</u> 1.71
	NPF	1.00 <u>+</u> 1.06	1.18 <u>+</u> 1.78

<u>Variable</u>	A	<u>dministration 1</u>	<u>Administration 2</u>
Y	PS	0.05 <u>+</u> 0.22	0.33 <u>+</u> 0.77
	PF	0.05 ± 0.22	0.00 <u>+</u> 0.00
	NPS	$0.20 \pm 0.52$	0.00 <u>+</u> 0.00
	NPF	0.23 <u>+</u> 0.56	$0.00 \pm 0.00$
YF	PS	0.25 <u>+</u> 0.64	0.06 <u>+</u> 0.24
	PF	0.05 <u>+</u> 0.22	0.10 ± 0.31
	NPS	0.10 <u>+</u> 0.31	$0.00 \pm 0.00$
	NPF	0.12 <u>+</u> 0.33	0.00 <u>+</u> 0.00
FY	PS	1.45 <u>+</u> 1.64	0.83 <u>+</u> 0.92
	PF	0.60 <u>+</u> 0.82	0.95 <u>+</u> 1.13
	NPS	0.75 <u>+</u> 0.79	1.10 <u>+</u> 1.49
	NPF	0.65 <u>+</u> 0.79	1.06 <u>+</u> 1.56
rF	PS	0.15 <u>+</u> 0.49	0.00 <u>+</u> 0.00
	PF	$0.05 \pm 0.22$	0.00 <u>+</u> 0.00
	NPS	0.10 <u>+</u> 0.45	0.00 <u>+</u> 0.00
	NPF	0.12 <u>+</u> 0.48	0.00 <u>+</u> 0.00

Table 2 (continued)

Variable		Administration 1	Administration 2
Fr	PS	0.20 <u>+</u> 0.41	0.22 <u>+</u> 0.55
	PF	0.25 <u>+</u> 0.64	0.37 <u>+</u> 0.83
	NPS	0.25 <u>+</u> 0.55	0.16 <u>+</u> 0.50
	NPF	0.23 <u>+</u> 0.56	0.18 <u>+</u> 0.53
FD	PS	0.55 <u>+</u> 0.89	0.67 <u>+</u> 0.69
	PF	0.45 <u>+</u> 0.69	0.42 ± 0.61
	NPS	0.55 <u>+</u> 0.76	$0.16 \pm 0.37$
	NPF	0.65 <u>+</u> 0.79	0.18 ± 0.09
F	PS	7.00 <u>+</u> 2.79	5.11 <u>+</u> 2.93
	PF	4.90 <u>+</u> 3.54	6.32 <u>+</u> 3.96
	NPS	5.35 <u>+</u> 3.72	4.21 <u>+</u> 3.10
	NPF	5.82 ± 3.71	4.41 <u>+</u> 3.18
DV	PS	0.75 <u>+</u> 1.12	0.71 <u>+</u> 1.26
	PF	0.70 <u>+</u> 1.03	0.56 <u>+</u> 0.86
	NPS	0.50 <u>+</u> 0.89	0.32 <u>+</u> 0.95
	NPF	0.59 <u>+</u> 0.94	0.35 <u>+</u> 1.00

<u>Variable</u>		Administration 1	Administration 2
INCOM	PS	$0.25 \pm 0.44$	0.39 ± 0.78
	PF	0.65 <u>+</u> 1.04	0.50 ± 0.71
	NPS	0.25 <u>+</u> 0.55	0.53 ± 0.84
	NPF	0.18 <u>+</u> 0.39	$0.41 \pm 0.62$
DR	PS	0.30 <u>+</u> 0.57	0.56 <u>+</u> 1.25
	PF	0.80 <u>+</u> 1.20	0.74 <u>+</u> 1.24
	NPS	0.10 <u>+</u> 0.31	0.68 <u>+</u> 1.53
	NPF	0.12 <u>+</u> 0.33	0.76 <u>+</u> 1.60
FABCOM	PS	0.30 <u>+</u> 0.47	$0.33 \pm 0.84$
	PF	0.60 <u>+</u> 0.88	$0.63 \pm 1.30$
	NPS	0.25 <u>+</u> 0.44	0.68 ± 0.75
	NPF	0.23 <u>+</u> 0.44	0.65 ± 0.79
ALOG	PS	0.20 <u>+</u> 0.70	$0.00 \pm 0.00$
	PF	0.05 <u>+</u> 0.22	0.05 <u>+</u> 0.23
	NPS	0.00 <u>+</u> 0.00	0.05 ± 0.23
	NPF	$0.00 \pm 0.00$	0.06 <u>+</u> 0.24

Table 2 (continued)

<u>Variable</u>		Administration 1	Administration 2
CONTAM	PS	$0.00 \pm 0.00$	0.06 ± 0.24
	PF	0.05 <u>+</u> 0.22	$0.00 \pm 0.00$
	NPS	0.00 <u>+</u> 0.00	$0.00 \pm 0.00$
	NPF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
WSUM6	PS	3.17 <u>+</u> 2.85	3.50 ± 3.38
	PF	4.05 <u>+</u> 2.17	2.95 <u>+</u> 3.10
	NPS	1.79 <u>+</u> 2.25	3.00 ± 2.98
	NPF	4.25 <u>+</u> 2.07	2.75 ± 1.97
D score	PS	$-1.00 \pm 1.50$	$-0.41 \pm 0.87$
	PF	$-0.63 \pm 1.30$	-0.53 <u>+</u> 0.70
	NPS	-0.84 <u>+</u> 1.34	$-0.32 \pm 0.67$
	NPF	-1.25 <u>+</u> 1.41	-0.75 <u>+</u> 1.07
Fr+rF	PS	0.39 <u>+</u> 0.70	0.22 <u>+</u> 0.55
	PF	0.32 <u>+</u> 0.67	0.37 ± 0.83
	NPS	0.37 <u>+</u> 0.68	0.16 ± 0.50
	NPF	$0.10 \pm 0.31$	$0.05 \pm 0.22$

<u>Variable</u>		Administration 1	Administration 2
Texture	PS	0.78 <u>+</u> 0.88	$0.44 \pm 0.62$
	PF	0.37 <u>+</u> 0.60	0.37 ± 0.76
	NPS	1.21 <u>+</u> 1.27	$0.32 \pm 0.58$
	NPF	0.65 <u>+</u> 0.81	0.75 <u>+</u> 0.79
Vista	PS	0.28 <u>+</u> 0.46	$0.17 \pm 0.38$
	PF	0.53 <u>+</u> 0.77	$0.26 \pm 0.56$
	NPS	0.42 <u>+</u> 0.69	0.53 <u>+</u> 0.96
	NPF	0.50 <u>+</u> 0.83	0.25 <u>+</u> 0.64
Adj D	PS	-0.72 <u>+</u> 1.36	-0.33 <u>+</u> 0.69
	PF	0.00 <u>+</u> 0.74	-0.58 <u>+</u> 1.02
	NPS	-0.33 <u>+</u> 0.97	-0.44 <u>+</u> 0.86
	NPF	-0.25 <u>+</u> 1.07	-0.65 <u>+</u> 1.14
3r+(2)/R	PS	0.27 <u>+</u> 0.16	0.23 <u>+</u> 0.15
	PF	0.33 <u>+</u> 0.18	0.37 <u>+</u> 0.26
	NPS	0.44 <u>+</u> 0.10	$0.40 \pm 0.22$
	NPF	$0.32 \pm 0.19$	$0.34 \pm 0.12$

<u>Variable</u>		Administration 1	Administration 2
Lambda	PS	0.74 <u>+</u> 0.61	0.72 <u>+</u> 0.70
	PF	0.56 <u>+</u> 0.56	0.88 <u>+</u> 0.71
	NPS	0.52 <u>+</u> 0.44	0.44 ± 0.31
	NPF	0.40 <u>+</u> 0.34	0.65 <u>+</u> 0.56
Isolate:R	PS	0.16 <u>+</u> 0.11	0.15 <u>+</u> 0.14
	PF	0.09 <u>+</u> 0.13	0.14 <u>+</u> 0.16
	NPS	0.13 ± 0.09	$0.08 \pm 0.09$
	NPF	0.16 <u>+</u> 0.14	0.14 <u>+</u> 0.12
Ag	PS	1.00 <u>+</u> 1.17	1.47 <u>+</u> 1.37
	PF	1.50 <u>+</u> 1.69	0.33 <u>+</u> 0.59
	NPS	0.68 <u>+</u> 1.20	1.63 <u>+</u> 1.89
	NPF	1.55 <u>+</u> 1.54	0.30 <u>+</u> 0.57
CONFAB	PS	0.06 <u>+</u> 0.24	$0.00 \pm 0.00$
	PF	0.00 <u>+</u> 0.00	$0.06 \pm 0.24$
	NPS	0.05 <u>+</u> 0.23	0.05 ± 0.23
	NPF	$0.00 \pm 0.00$	$0.00 \pm 0.00$

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<u>Variable</u>		Administration 1	<u>Administration 2</u>
CP	PS	0.06 <u>+</u> 0.24	0.59 <u>+</u> 0.24
	PF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPS	$0.00 \pm 0.00$	$0.00 \pm 0.00$
	NPF	$0.00 \pm 0.00$	$0.00 \pm 0.00$
MOR	PS	1.35 <u>+</u> 1.58	2.23 <u>+</u> 2.11
	PF	2.17 <u>+</u> 1.92	0.78 <u>+</u> 0.94
	NPS	1.21 <u>+</u> 1.40	2.05 <u>+</u> 2.39
	NPF	2.20 <u>+</u> 1.28	0.45 <u>+</u> 0.94
PER	PS	0.94 <u>+</u> 1.75	$0.29 \pm 0.85$
	PF	1.11 <u>+</u> 1.45	0.56 ± 0.98
	NPS	1.42 <u>+</u> 1.64	1.05 <u>+</u> 2.48
	NPF	$1.50 \pm 2.70$	0.85 <u>+</u> 1.27
PSV	PS	0.53 ± 0.87	$0.23 \pm 0.75$
	PF	0.06 <u>+</u> 0.24	$0.17 \pm 0.51$
	NPS	0.68 <u>+</u> 1.86	0.47 <u>+</u> 1.84
	NPF	0.30 <u>+</u> 0.57	0.10 ± 0.31

<u>Variable</u>		Administration 1	Administration 2
Depi	PS	1.28 <u>+</u> 0.89	1.39 ± 0.92
	PF	1.57 <u>+</u> 1.12	0.84 ± 0.60
	NPS	0.84 <u>+</u> 0.69	1.05 ± 0.83
	NPF	$1.30 \pm 0.91$	0.55 <u>+</u> 0.60
SConst	PS	4.78 <u>+</u> 1.52	5.94 <u>+</u> 1.89
	PF	6.26 <u>+</u> 1.56	4.79 <u>+</u> 1.81
	NPS	4.58 <u>+</u> 1.61	5.68 <u>+</u> 1.94
	NPF	5.45 <u>+</u> 1.43	4.60 <u>+</u> 1.27
Sczi	PS	2.56 ± 0.86	2.83 ± 0.86
	PF	$2.68 \pm 0.67$	2.58 ± 0.77
	NPS	$2.21 \pm 0.92$	2.53 ± 0.77
	NPF	2.75 <u>+</u> 1.07	$2.50 \pm 0.89$
X+%	PS	0.50 <u>+</u> 0.17	0.43 <u>+</u> 0.20
	PF	0.43 <u>+</u> 0.15	0.49 <u>+</u> 0.17
	NPS	0.58 <u>+</u> 0.15	0.46 <u>+</u> 0.19
	NPF	$0.46 \pm 0.19$	0.56 <u>+</u> 0.18
Х−%	PS	0.41 <u>+</u> 0.17	0.51 <u>+</u> 0.18
	PF	0.52 <u>+</u> 0.15	0.50 <u>+</u> 0.17
	NPS	0.39 <u>+</u> 0.17	0.46 <u>+</u> 0.20
	NPF	0.53 <u>+</u> 0.19	0.40 <u>+</u> 0.16

Table 2 (continued)

<u>Variable</u>		Administration 1	Administration 2
F+%	PS	0.58 ± 0.21	0.53 <u>+</u> 0.28
	PF	0.54 <u>+</u> 0.67	0.47 <u>+</u> 0.29
	NPS	$0.53 \pm 0.33$	$0.48 \pm 0.34$
	NPF	$0.38 \pm 0.32$	0.66 <u>+</u> 0.27

PS=psychiatric, standard instructions first
PF=psychiatric, fake instructions first
NPS=nonpsychiatric, standard instructions first
NPF=nonpsychiatric, fake instructions first

## Scores Collapsed Across Psychiatric Status

and Instructional Set (Means and Standard Deviations)

	Mean	Standard Deviation
Variable	Administration 1	Administration 2
W	8.39 ± 3.42	7.04 <u>+</u> 2.89
Zf	10.62 <u>+</u> 4.10	8.86 ± 3.23*
Fire	0.43 <u>+</u> 0.66	0.18 ± 0.51*
Food	0.92 <u>+</u> 0.33	0.26 <u>+</u> 0.60*

\*significance difference across administrations, p < .05.

Human Movement (M+ and Mo) Responses by

Psychiatric Status and Initial Instruction (Means and Standard Deviations)

	Admir	<u>mistration 1</u>	Administration 2
Psychiatric	S	1.28 <u>+</u> 1.41	1.33 <u>+</u> 1.78
	F	0.84 <u>+</u> 1.30^	0.95 <u>+</u> 0.78
NonPsychiatric	S	2.74 <u>+</u> 2.40^	1.32 <u>+</u> 1.60*
	F	1.15 <u>+</u> 0.99^	$1.45 \pm 0.89$

- S = standard instructions first
- F = Fake instructions first
- ^ = significant difference, p < .05.
- \* = significant differences across administrations,  $\underline{p}$  < .05.

Table 5 Scores Across Administrations by Instructional Set (Means and Standard Deviations)

<u>Variable</u>	<u>Initial</u> Instruction	<u>Admin 1</u>	<u>Admin 2</u>
DQ+	Standard	4.07 <u>+</u> 3.42	4.45 <u>+</u> 3.65
	Fake	5.27 <u>+</u> 3.62	3.23 <u>+</u> 2.52*
DQo	Standard	$12.09 \pm 6.35^{\circ}$	$7.75 \pm 4.95*^{\circ}$
	Fake	8.41 ± 5.57^	10.87 ± 5.64*^
FQx+/o	Standard	9.87 ± 4.17^	7.81 <u>+</u> 3.67*
	Fake	6.98 ± 3.13^	6.97 <u>+</u> 3.75
FQxu/-	Standard	7.71 <u>+</u> 5.78^	7.19 ± 4.91
	Fake	8.49 ± 3.49^	7.58 <u>+</u> 4.72*
FQf+/o	Standard	3.37 ± 1.99^	2.36 <u>+</u> 1.66*
	Fake	1.98 ± 1.80^	2.98 <u>+</u> 1.60*
X+8	Standard	0.54 <u>+</u> 0.16^	0.44 <u>+</u> 0.20*
	Fake	$0.44 \pm 0.17^{\circ}$	0.53 ± 0.18
X-%	Standard	$0.40 \pm 0.17^{\circ}$	0.49 ± 0.17*
	Fake	0.53 <u>+</u> 0.19^	0.45 <u>+</u> 0.16*
WSUM6	Standard	2.46 <u>+</u> 2.54^	3.24 ± 3.17
	Fake	4.15 ± 2.12^	2.84 ± 2.52*
Adj D	Standard	-0.53 ± 1.13^	$-0.39 \pm 0.77$
	Fake	$-0.01 \pm 0.91^{\circ}$	-0.61 <u>+</u> 1.07*
Lambda	Standard	0.63 <u>+</u> 0.52	0.58 ± 0.50
	Fake	0.48 <u>+</u> 0.45	0.71 <u>+</u> 0.53*

<u>Variable</u>	<u>Initial</u> Instruction	<u>Admin 1</u>	<u>Admin 2</u>
Suicide-C			
	Standard	4.69 <u>+</u> 1.56^	5.81 <u>+</u> 1.92*^
	Fake	5.85 <u>+</u> 1.49^	4.69 <u>+</u> 1.54*^
Depi Index			
	Standard	1.06 <u>+</u> 0.79^	1.22 <u>+</u> 0.97^
	Fake	1.46 ± 0.97^	0.70 <u>+</u> 0.60*^
Scz Index			
	Standard	2.38 ± 0.89	2.68 <u>+</u> 0.81
	Fake	2.72 <u>+</u> 0.39	2.54 <u>+</u> 0.83

^ significant group difference per administration,

<u>p</u> < .05.

\* significant change across administrations,  $\underline{p}$  < .05.

Demographic Characteristics of Clinical Judges

Sex	<u>Teach Rorschach</u>	<u>Supervise Rorschach</u>
Male=46%	Yes = 21%	Yes = 58%
Female=54%	No = 79%	No = 42%

Age	Degree	Research with Rorschach
<30yrs.=8.33%	Doctorate=79%	Yes = 16.67%
31-35yrs =4.17	Masters=21%	No = 83.33%
36-40yrs.=33.33%		
40-50yrs.=29.17%		
>50 yrs.=25%		

Rorschach Experience	Exner Scoring Experience
<2yrs.= 8.33%	<1 yr.= 4.17%
2-5yrs.= 12.5%	1-3yrs=16.67%
5-10yrs.= 33.33%	4-6yrs=29.17%
>10yrs.= 45.84%	>6yrs.=50%

Clinical Judges' Ratings of Protocols (Means and

Standard Deviations)

Variable	<u>Psychiatric Status</u>	<u>Standard Prot</u>	Fake Prot.
Fake	Psychiatric	4.31 <u>+</u> 1.69^	4.90 <u>+</u> 1.05
	Nonpsychiatric	5.55 ± 0.92^	3.31 <u>+</u> 1.76*#
SConst	Psychiatric	3.47 <u>+</u> 1.72	3.67 <u>+</u> 1.40
	Nonpsychiatric	4.10 <u>+</u> 1.60	2.67 <u>+</u> 1.37*

\*significant difference between protocols, p < .05.

#higher scores indicate greater likelihood that protocol
was standard.

^significant difference between groups, p < .05.

Clinical Judges' Importance Ratings of Rorschach Factors on Decision Making (Means and Standard Deviations)

Protocol	
dard <u>F</u>	ake
0.97 2.0	)8 <u>+</u> 0.84*#
1.66 3.1	.7 <u>+</u> 1.38*
1.22 2.9	7 <u>+</u> 1.39*
	Protocol         dard       F         0.97       2.0         1.66       3.1         1.22       2.9

\*significant difference between protocols, p < .05.

#Lower scores indicate weightings of higher importance in decision making

Clinical Judges' Ratings of Rorschach Factors

on Decision Making (Means and Standard Deviations)

	Protocol	
Variable	<u>Psychiatric</u>	Nonpsychiatric
FQx	3.05 <u>+</u> 1.40	2.67 <u>+</u> 1.24*#
Ratios	2.33 ± 1.03	2.97 <u>+</u> 1.58*

\*significant difference between protocols, p < .05. #Lower scores indicate weightings of higer importance in decision making.

Table 10

	the same a second se	and the second se	the second s		
Variable	PS	PF	NPF	<u>NPS</u> *+	
R	18	15.5	27	14	
Blends	6.5	2.5	10	1	
Н	3	2.5	1	3	
Bl	1.5	1	2	0	
Sx	0.5	2.5	4	0	
С	0	0	3	0	
FC'	1	0.5	4	0.5	
Incom	1	0.5	3	0	
Fabcom	1.5	1.5	2	0	
Ag	3.0	0.5	2	0	
WSUM6	14	14.5	7	0	
X+%	0.40	0.61	0.44	0.75	
X-%	0.60	0.39	0.52	0.25	
SConst	6	6	7	2	

Mean Responses for Protocols

+ PS=psychiatric, standard; PF=psychiatric, fake; NPF=nonpsychiatric, fake; NPS=nonpsychiatric, standard \* n=2 for each group

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101
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# Appendix A

### Rorschach Variables

<u>Determinants</u> (to be corrected f Productivity)	for total <u>Content</u>
P M FM M CF+C+Cn FC FC'+C'=C'F T+TF+FT Y+YF+FY FD F Fr+rF (2)	SX Al AY Bl Cg EX Fl Hh SC (Other content categories are incorporated in ratios below)
(Already Corrected for R)	
R Zd D Adj D	Ab+Art An+Xy
Afr	Pure H
3r+(2)/R L	H+A:Hd+Ad
Blends: R X + % X - % F + % W:M W:D Isolate: R	

## Appendix B

Mental Health Screening Instrument

During the past four weeks, how much of the time did you feel:

A) \_\_unhappy b) \_\_anxious c) \_\_depressed d) \_\_irritable?

None of the time	
A little bit of the time	
Some of the time	
Most of the time	
All of the time	5

#### Appendix C

#### Judges' Evaluation Form I

Part 1

Respondents were asked to take the Rorschach under standard conditions and to take it with the intention of creating a misimpression of themselves to clinicians.

Please indicate if you think the attached protocol was given under standard or "faked" instructional sets. Circle the answer on the rating scale that best represents your answer.

1	2	3	4	5	6	7
Very sure Faked	Sure Faked	Somewhat Sure	Neu- tral	Somewhat Sure	Sure Stand-	Very sure
Instruct- ions		Faked		Standard	ard Instr- uction	Stand-

Part 2

Please indicate how important the following factors were in making your foregoing decision by using the following continuum (Please rate all choices):

1	2	3	4	5	6	7
Not very	Impor-	Somewhat	Neut-	Somewhat	Unimpor-	Very
important	tant	important	ral	unimpor-	tant	unim-
				tant		portant

1.	Content of Rorschach responses
2.	Location Features
3.	Determinants
4.	Form Quality
5.	S-Constellation
6.	Special Scoring
7.	Ratio, Percentages, and Derivations
8.	Sequence of Responses
9.	Other (Please explain):

#### Appendix C

Judges' Evaluation Form II

Protocol No.

Part 1

We would like for you to rate each protocol along a continuum of maladjustment. Please circle the number that you think is most representative of the protocol identified above.

1	2	3	4	5	6	7
Severely	Very	Some-	Neutral	Some-	Adjusted	Well
Malad-	Malad-	what		what		ad-
justed	justed	malad-		adjust-	-	justed
		justed		ed		-

#### Part 2

Please indicate how important the following factors were in making your foregoing decision by using the following continuum. (<u>Please rate all choices</u>):

1	2	3	4	5	6	7
very impor-	impor- tant	some- what	neutral	some- what	unimpor- tant	not impor-
tant		impor- tant		unimpor- tant	-	tant at all

 1.	Content of Rorschach responses
 2.	Location features
з.	Determinants
 4.	Form Quality
5.	S - Constellation
6.	Special scoring
7.	Ratios, percentages and derivations
8.	Sequence of responses
 9.	Other (please explain):

### Appendix C

### Judges' Evaluation Form II (cont.)

Part 3

Please feel free to make any comments you would like pertaining to the individual protocols or the study in general:

Enter your name and address below <u>only</u> if you would like to receive feedback concerning your accuracy rate.

Name:

Address:

# Appendix D

# Judges' Demography Questionnaire

Please complete all items by checking the appropriate spaces, and return this form with your protocol evaluations.

1.Yo	our sex	2.Your age?	3.Your highest
			degree?
·····	male	less than 30	Ph.D.
	female	between 31-35	Psy.D.
		between 36-40	Ed.D.
		between 40-50	6 Yr.
			Certificate
		Older than 50	M.A.or M.S.
			Other
			(specify)
4.	Approximately ho	w long have you used	the Rorschach?
	Less than 2 yrs	2 to 5 yrs	5 to 10 yrs
	more than 10 yrs		
5.	Approximately ho	w long have you used	the
Comp	rehensive System	1?	
	less than 1 yr	1 to 3 yrs	4 to 6 yrs
	more than 6 yrs		
6.	Have you ever pu	blished or presented	a paper
conc	erning the Rorsc	hach?	
	YesNo		
7.	Do you teach Ror	schach assessment?	
	Yes No		

110

### Appendix D

Judges' Demography Questionnaire (cont'd)

B. Do you supervise Rorschach assessment?
 Yes No

9. Which of the following describes your primary work setting?

\_\_\_\_Corrections \_\_\_\_Federal Governmet

\_\_\_\_General Medical \_\_\_\_Hospital

Medical School Outpatient Clinic

\_\_\_\_\_Private Practice \_\_\_\_\_Psychiatric Hospital

\_\_\_\_\_School system\_\_\_\_University \_\_\_\_Other (specify)

10. Please check <u>any two</u> that reflect the groups most common in your work in assessment.

Adolescents	Adults _	Children _	Day Care
Families	Forensic	Inpatients	Outpatients
Other (	)		

RESULTS OF THE STUDY WILL BE SENT TO ALL WORKSHOP ALUMNI. IF YOU WOULD LIKE TO KNOW ABOUT YOUR OWN ACCURACY RATE, PLEASE ENTER YOUR NAME AND ADDRESS HERE:

\*PLEASE RETURN THIS COMPLETED FORM IN THE ENVELOPE PROVIDED

# VITA

# Alethea Elaine Young

### Candidate for the Degree of

### Doctor of Philosophy

### Thesis: THE EFFECTS OF INSTRUCTIONAL SETS ON THE RORSCHACH

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