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AN EXAMINATION OF NAIVE AND ROLE INFORMED FAKING
ON RORSCHACH PERFORMANCE

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ABSTRACT

This study was undertaken to determine if non-psychotic adults could simulate a psychotic presentation, malingering, on the Rorschach Inkblot Test, as evaluated using Exner's Comprehensive System. All Ss were volunteers from an undergraduate psychology class and were screened for the absence of psychosis with the Minnesota Multiphasic Personality Inventory. Ten males (ages 18-35) and 20 females (ages 18-35) were randomly assigned to three equal groups. Males and females were distributed on an equal basis to each group.

Each group was administered the Rorschach by examiners who were naive regarding the experimental conditions. The control group was tested according to standard procedure. A second group of naive fakers (NF) was told to imagine that they were being tested following a judicial request and that they wanted to appear to be "crazy" to avoid incarceration. A final group of role informed fakers (IF) was given specific instructions regarding how to malingering prior to testing. Following test administration both treatment groups were debriefed regarding their strategies for malingering.

Three Multivariate Analyses of Variance (MANOVAs) were employed to evaluate the 36 dependent variables under study; two MANOVAs had 13 variables and the other had 10. Individual Analyses of Variance (ANOVAs) were employed to follow up the two MANOVAs which had significant F -ratios ($p > .05$). Eleven ANOVAs displayed significant treatment effects ($p > .05$). Next, Tukey "B" Comparisons ($\alpha < .05$) were employed to compare group means. The IF and NF groups

differed from the controls on nine and four variables. Two and four variables were shown to be significantly different across and between treatment groups, respectively.

Although multiple treatment effects were identified, reliable indicants of malingering were not found. The NF group produced test results which were more indicative of actual psychosis than did the IF group who produced many results which were too pronounced to be believed. The behavioral presentation of both groups was inconsistent with psychosis. They remained in relationships which were complementary with the examiner irrespective of whether they were oppositional or cooperative. It was suggested that malingering could best be identified if the test results were examined in the context of the extra-test behavior, history, and possible motivation of the S.

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LIST OF SYMBOLS

<u>Symbol</u>	<u>Variable</u>
<u>A</u>	Animal
<u>(A)</u>	Mythical or imaginary animal
<u>(A%)</u>	Animal percent
<u>Ad</u>	Animal detail
<u>(A)</u>	Mythical or imaginary animal detail
<u>An</u>	Anatomy
<u>a</u>	Active movement, total
<u>B1</u>	Blood
<u>Bt</u>	Botany
<u>C</u>	Pure color
<u>CF</u>	Color with form as a secondary quality
<u>Cg</u>	Clothing
<u>Cl</u>	Cloud
<u>D</u>	Detail
<u>Dd</u>	Unusual detail
<u>DQ%</u>	Developmental quality percent
<u>ep</u>	Experience potential
<u>Ex</u>	Explosion
<u>F+%</u>	Form quality percent
<u>FC</u>	Form dominated response with color as secondary quality
<u>FD</u>	Food
<u>Fi</u>	Fire
<u>FM</u>	Animal movement

<u>Symbol</u>	<u>Variable</u>
<u>Ge</u>	Geography
<u>H</u>	Human
<u>(H)</u>	Mythical or imaginary human
<u>Hd</u>	Human detail
<u>(HD)</u>	Mythical or imaginary human detail
<u>L</u>	Lambda
<u>Ls</u>	Landscape
<u>M</u>	Human movement
<u>Ma</u>	Active human movement
<u>Mp</u>	Passive human movement
<u>m</u>	Inanimate movement
<u>Na</u>	Nature
<u>P</u>	Popular
<u>p</u>	Passive movement, total
<u>R</u>	Total responses
<u>r</u>	Reflection
<u>S</u>	Space
<u>Sx</u>	Sex
<u>W</u>	Whole
<u>X+%</u>	Extended form quality
<u>Xy</u>	X-ray
<u>Zf</u>	Frequency of organizational response
<u>(a)</u>	Pair

INTRODUCTION

Recent changes in the political and economic climate of the United States are reflected in the changing status of the psychiatric patient. The previously undesirable status of psychiatric patient is more advantageous than it had formerly been. With the cutback in many social service programs and high unemployment, it is not surprising that there are record numbers of requests for Social Security Disability Benefits (Davis, 1983). Likewise, with the recent emphasis on "Law and Order" within the legal system, it is understandable that the insanity plea would be more appealing than in the past; required minimum sentences, limited opportunity for parole, and the elimination of some first offender programs may all make the insanity plea preferable to pleading guilty for a negotiated sentence. These circumstances indicate that there is an obvious benefit to being labeled a psychiatric patient.

Psychologists, psychiatrists, and other helping professionals have assumed the burden of determining who can receive special economic and/or judicial consideration as a result of psychiatric disabilities (Halleck, 1971). In making such a determination the psychologist often relies on psychological testing. Therefore, a psychologist must believe that his/her instruments give a valid picture of the individual who is being assessed. Further, as there may be advantages to simulating a psychiatric disorder when one does not exist, it behooves the psychologist to either choose instruments which cannot be faked, or to take the possibility of faking into

account when interpreting his/her results. At least, the psychologist should have a reasonable idea if the results obtained are representative of the individual who is being assessed.

Generally, it is accepted that most individuals do not fake as readily on tests of achievement or intelligence as on personality tests. As implied by Anastasi (1976), misrepresenting one's self on personality tests has been recognized as a problem almost since the inception of such testing. Early efforts to ensure valid measurement of personality factors focused primarily on identifying those individuals who were presenting themselves in an overly positive fashion and/or to construct tests which reduced the possibility of such faking. The development of validity scales and the use of forced choice formats are examples of these efforts. Although these and other strategies were intended to control for people's tendencies to respond in socially desirable fashions, there has only been limited success in identifying and eliminating "faking" (Aiken, 1973).

In order to understand why test authors focused on "faking good" it is important to recognize the context under which personality testing was employed. Early testing was often utilized to diagnose or categorize psychiatric patients. Often times, the choice of treatment (outpatient vs. inpatient, individual vs. group, etc.) and the length of hospitalization were dependent on the diagnosis one received. Consequently, to many patients there seemed to be an inherent advantage to presenting one's self in as positive a light as possible. Likewise, since personality tests were often utilized in

employment selection, individuals would have a definite advantage if they could present themselves in a favorable fashion.

Another attempt to reduce the patients' response set was the use of projective testing. Because such testing employed ambiguous stimuli and the patients' responses supposedly had no obvious social value, it was assumed that faking would be eliminated. To paraphrase Murray (1935), projective testing allowed the examiner to obtain an "x-ray" of one's personality without alerting the patient to those variables being examined. Such testing supposedly provided an unfiltered picture of the patient's intrapsychic world.

Unlike faking good, there was little advantage to purposefully simulating psychological difficulties (malingering) on psychological instruments until the Second World War. At that time being diagnosed as emotionally disturbed exempted one from induction into the military or, if one was already in the military was cause for discharge. Other than in the military, malingering on psychological tests provided no obvious reward until the mid-1950's when psychiatric and psychological involvement in the judicial system became more common. Although psychologists and psychiatrists had almost no input into the legal system prior to that time, their influence has expanded almost exponentially from then on through the 1960's (Robitscher, 1980). Once psychiatric and psychological explanations became legal justification to excuse one from the responsibility for a crime or at least to influence the treatment one received, the advantages of simulating psychopathology became salient. Additionally, with the expansion of the social service programs that occurred in the 1960's,

more monies became available to support outpatients with psychiatric disabilities. Thus, in some cases there were legal and/or monetary advantages to having a "psychiatric disorder."

It may be interesting to consider the phenomenology of malingering. One could make a good case that anyone who would simulate mental illness must, at least, be "suffering from" a personality disorder. Alternately, malingering can be viewed as an antisocial form of behavior exhibited by individuals who are trying to avoid responsibility, to use others, or to gain unfair advantage over others. Finally, malingering can exist in the obvious presence of another psychiatric disorder. This last condition can produce some rather dramatic behaviors. For example, an individual with a history of schizophrenia, paranoid type, re-entered treatment (after refusing services for several months) with the complaint that he was fearful of committing suicide following the breakup of a relationship with a married woman. At the time of intake he was administered the Minnesota Multiphasic Personality Inventory on which he acknowledged virtually every item which would clearly indicate psychopathology. He then asked the examiner to call his "friend" and tell her that he (the patient) would probably commit suicide if she continued to avoid seeing him. When the patient became aware that the author would not support his manipulation or be duped by his presentation, the patient quickly became non-communicative and left the office. Obviously, malingering can occur irrespective of the degree of psychopathology which one demonstrates. (Laing presents an interesting

discussion of malingering by schizophrenic individuals in his 1972 book, The Divided Self.)

Prior to examining the actual nature of the "malingering" process, it is important to note that the possibility of malingering is inherent in an evaluation process which relies on limited observations of the "patient." Psychiatric diagnosis is an act of pattern recognition and subsequent classification. It requires that the professional sample enough "behaviors" to determine that the patient meets established criteria to be classified in one way or another. Once a "diagnosis" has been made there is a temptation to evaluate further findings in terms of one's expectations rather than to question if new information is consistent with the "pattern." Thus, as in any logical argument if the presenter (patient) can get the audience (professional) to accept erroneous assumptions then the conclusion is forespoken. Further, given the nature of the helping professions, there is a tendency for professionals to become ego-involved in their diagnoses and to defend rather than to question their actions when challenged. Thus, once the malingerer has performed his/her "coupe de maitre" he/she can then sit back and let the system manipulate itself. Once the malingerer has convinced the professional that he/she is indeed "mentally ill," then the major focus of contention becomes the professional's report rather than the malingerer's presentation. In essence the malingerer is aided by a system which treats people as objects which are either functional or non-functional rather than as individuals with variable capacities.

In addition to the difficulties noted above, one must question the evaluation process. Most commonly, the professional attempts to make judgments regarding the patient's suitability to work, his ability to aid attorneys in building a defense and the like without actually viewing such behaviors. Even though the judgments made by professionals are based on prior knowledge regarding "similar" patients or on knowledge of the skills required to perform a certain act, professional judgments are speculative in nature. The professional who presents his evaluations otherwise is as deceptive as the malingerer.

It makes little sense to view malingering as a discrete act out of the context of the person's lifestyle. This is particularly evident when one recognizes that two individuals who are facing similar objective situations may choose quite dissimilar methods of dealing with the "same conflict." One may readily choose the simulation of mental illness as an acceptable solution while a second individual may see this solution as unthinkable. What are the characteristics of the malingerer that make such actions a suitable choice? The malingerer focuses on deceiving the other and fails to see the deception of the self. Prior to any overt simulation of mental illness, the malingerer has defined the other as being "the problem" rather than recognizing his/her own responsibility for the creation of problems faced or for the development of solutions. The tone of interpersonal interaction becomes competitive rather than cooperative and the malingerer is striving for superiority (narcissistic gratification) through overcoming the other. In defining the

other as the problem and making the interaction a competitive one (from his/her viewpoint) the malingerer is able to establish distance between himself/herself and the other and to deny the basic vulnerability which led him/her to choose such a regressive course of action. Although the malingerer may view his/her behavior as expedient, the underlying intentionality of such behavior is to assume a passive stance whereby someone else (the system) intervenes and assumes a caretaking role.

The self-deception of the malingerer affords him/her other benefits which are accepted with little introspection. Because the other is seen as having what the malingerer needs (desires) and as not providing gratification voluntarily, the malingerer can feel justified in his/her actions, at least to some degree. Also, because malingering does not overtly hurt the other person, the malingerer can justify his/her actions on the basis of doing no "real" harm. Further, the act of malingering itself relieves the subject from facing the potential failure that he/she might face if gratification were sought through more usual channels. Should failure arise, the malingerer can either externalize the blame (the other deprived me) or deny that the failure was his/her responsibility (I would have been successful if I had done something else).

To summarize, malingering is a form of self deception which hides one's fear of failure and allows one to escape the actual and/or potential consequences of acting otherwise. Because it creates a sense of distance from the other, the malingerer can assume a passive dependent role without having to experience the vulnerability which

accompanies dependency. Further, the malingerers are able to maintain a distorted self-image in which they are powerful and have the potential to act other than they do.

As implied above, the act of malingering necessitates a potentially distorted view of the other. First and foremost, the other is viewed as a competitive untrusting individual who is attempting to uncover the actual deception and to deprive the malingerer. He/she has much to give, but will not share. On one hand if the other person detects the malingering that person is seen as an angry, greedy individual while on the other hand if he or she fails to detect malingering he/she is seen as a dupe and a fool. Obviously, viewing the other in either manner serves to isolate the malingerer and to promote paranoia.

Having some knowledge of the malingerer's views of self and other it is appropriate to examine the phenomenological experience of malingering. When malingering, the patient (actor) is attempting to present a picture of himself/herself which is consistent with the other's (agent's) view of psychopathology while maintaining a self concept which is independent of the self presentation. In that the agent is assumed to be the expert on psychopathology, the actor is faced with a situation in which he/she must enter the agent's domain and convince the agent that what he/she sees is the actor's true self rather than a persona (false self) donned for immediate occasion. This task is further complicated by a situation which usually leads the agent to be cautious, especially in forensic or disability cases. Additionally, since historical data may not fully support the actor's

presentation successful malingering requires extremely adroit and subtle manipulation of the agent.

One must question what are the elements of the master stroke which ensnares the agent. First, the actor must avoid any action which allows the agent to dismiss him/her as a "crock" (i.e., a fraud). The actor must, therefore, present himself/herself in a manner which is consistent with a pattern of psychopathology that the agent will recognize without contradicting his/her (the actor's) previous history. Also, the actor must be sure that there is concurrence between the communication "given" (verbalized) and "given out" (behaved) (Goffman, 1959). Without assuming formal study of psychopathology, how can one explain the adroitness with which some actors actually achieve these ends? How are some actors able to shift their personal presentation with such successfulness so as to "beat the system"? Clearly, the successful actor must be quite sensitive to the expectations, mood, and countertransference of the agent. They must assume a role which elicits cooperation and pseudo-control by the agent; the demands of the actor must be so subtle that the agent does not rebel and become rejecting. (Although not discussed herein, the actor must also be alert to instances where attempting to manipulate the agent would lead to power struggles which he/she could not win.) The successful actor eventually places the agent in a position in which the actor must win for the agent to win. For example, an actor would be successful if he/she instilled in the agent the belief that the agent should assist the actor in obtaining disability benefits.

It is interesting to speculate about the characteristics and presentation which the actor must have in order to be successful in the endeavor. First, he/she must be able to shift facilely from one false self or false role presentation to another on the basis of extremely limited feedback. Once the shift has been made the actor must be able to carry out that role without interference of his true self. Such a presentation implies an interpersonal stance in which the actor can readily assume complementary roles with a variety of people. It also assumes that people are somewhat interchangeable to allow such rapid shifting without the occurrence of obvious residual effects. Further, to be successful the actor must be able to present a rather ambiguous picture wihtout being so bland as to alert the agent that he/she (the actor) is waiting for cues regarding how to behave. Also, the actor must display a great capacity for empathy. He/she must be able to intuit when his/her presentation causes the agent anxiety or conflict and avoid raising the agent's anxiety to the point that the attempts at manipulation are recognized. Lastly, the actor must be able to maintain enough of an empathic relationship so that the agent not only feels secure in his diagnostic evaluation, but also feels that he/she (the agent) established the diagnosis. In a real sense the actor seduces the agent into acting on his/her behalf.

In summary, it has been said that the self is the ground from which the individual interprets the world. In the case of the malingerer the self appears to be quite fractionalized and thus provides an unstable base from which the world is interpreted. The self

of the malingerer appears to be comprised of a "perceived true self" (which observes the individual in action and interprets his/her actions) and various false selves or false roles which he/she dons. In that the true self represents not just one's actualized accomplishments but also his/her potential for accomplishment there is some question regarding the degree to which the malingerer is actually in touch with his/her true self. In that there is a failure to recognize the high degree of self deception and a lack of access to the true self, the malingerer may not be as free to act as he/she believes. Thus, the narcissistic deception and manipulation which the malingerer employs in interacting with the other is evident on a deeper level.

Having examined the intentionality and experience of malingering, its occurrence in psychological testing merits consideration. In that the Rorschach is the most commonly employed projective personality assessment technique, it is unfortunate that there is no established method of reliably determining if the patient is attempting to present himself/herself in an unrealistically unfavorable manner. One may argue that malingering on the Rorschach is not a real problem because most people are unfamiliar with the test and do not know on what basis the examiner is evaluating them. Unfortunately, extrapolating from the research performed by Alber, Fox, and Kahn (1980), people are able to simulate mental illness on the Rorschach with little or no knowledge about the role which they are attempting to assume. Further, research on other personality measures suggests that if the examinee is provided information regarding role expectations, he/she is able to produce test responses

which suggest that presence of the psychopathology that he/she was trying to simulate (Foulds and Warehime, 1971; Kroger and Turnbull, 1975). Consequently, it is expected that even if malingering on the Rorschach is easily identified in naive subjects, role informed subjects may be able to produce less easily identifiable test protocols.

The purpose of this study was twofold. First, an attempt was made to establish whether naive non-psychotic subjects could produce Rorschach protocols that were significantly different from those produced by a control group when simply asked to take this test "as if" they were "crazy." Second, an attempt was made to determine if brief instructions increased one's ability to fake psychosis--that is, did the providing of simple instructions enable one to produce a Rorschach profile that was significantly different from naive "fakers" (NF) and non-faking controls.

In accordance with these purposes, the following null hypotheses were developed:

1. Subjects who are simply asked to respond "as if" they were "crazy" will not produce Rorschach protocols that are significantly different from those produced by control subjects who respond normally.
2. Role informed subjects will not vary significantly in their protocols from either the control group or the naive faking group.

In sum, one position would suggest that if the significant results were found it would be necessary for the psychologist to be

quite cautious in the use of the Rorschach in forensic and/or disability examinations. In contrast, it was believed that a lack of significant results may enable the psychologist to employ the Rorschach with greater confidence that the results obtained are representative of "usual" functioning rather than a consciously assumed facade.

I. LITERATURE REVIEW

Much of the past controversy surrounding conscious and unconscious manipulation of one's inkblot test performance appears to have resulted from overly restricted viewing of Herman Rorschach's (1942) rather authoritarian method of communication. He frequently made declarative statements which he then modified later in the text. For example, when speaking of the ability to produce movement (M) responses he states "this component is not increased in force by conscious effort or by consciously focusing attention upon it" (p. 65). Later he calls to the reader's attention that individuals who are familiar with the test and attempt to produce as many M's as possible often produce M- responses that they would not have otherwise produced. Further, he suggests that "those subjects who, in the ordinary experiment (testing situation) give numerous M's can increase the number of good kinaesthetic responses (M's) with relative ease" (p. 68). Clearly, if one reads Rorschach's work with the intention of finding inconsistencies and contradictions, this specific instance would provide a basis for criticism, as would others.

Rather than maintain an antagonistic and critical stance towards Rorschach's ostensibly contradictory statements, it may be more beneficial to focus on how he anticipated and suggested much of the later criticism of and research on his inkblot test. He suggested that "the experiment [test] representing a process of free choice in its usual form can be altered to be one where the choice is conditioned by 'helps'" (p. 66). By this he meant that instructions

to respond in a specific manner and/or to specific test attributes resulted in modifications of the response profile. He then went on to question how "the focusing of attention on a factor influences the findings concerning that factor," how "other factors [are] influenced when attention is focused on one," and "how large are the individual variations" (p. 66) that occur in the above situations, as compared to group means.

Obviously, Rorschach saw instructions to the subject (S) and the S's previous experience with the test as influencing the pattern of responses produced. The current section of this paper will focus on his discussion of the Experience Type (Erlebnistpus), form quality (F+), and the number of whole responses (W) to demonstrate that Rorschach indeed established a precedent with respect to examining how factors other than intrapsychic structure affect inkblot performance. The Erlebnistpus (EB) is a ratio of the number of movement (M) to the weighted sum of color responses (C)^{1,2,3}. It was considered to be a relatively fixed mode of experience in which "very

¹Rorschach saw M responses as reflecting the capacity for "inner experience" and the color responses as reflecting affectivity.

²In his study of protocols gathered from normal individuals, Rorschach found that form dominated color responses (FC) occur three times more frequently than do responses in which color is integral and form is secondary (CF) in the production of the response. Further, responses in which color is the only factor influencing the formation of a precept (C) generally do not arise in protocols produced by normal individuals.

³As postulated, one CF response was balanced by one M response. He developed the ratio of $M : .5 FC + CF + 1.5 C$ as a method of examining whether one was more prone to employ inner experience (fantasy, delay of behavioral response, etc.) or affective expression in one's daily life.

marked fluctuations are probably pathological" (p. 94). Even though Rorschach stated that the EB was a relatively stable variable, he did recognize that conscious attempts to produce M responses and/or C responses, the S's mood, and past experience with the test could produce a test protocol which was not representative of the S's usual mode of functioning. It should be noted that the changes artificially produced in the EB were believed to be of short duration and that the S's performance would return "to its habitual state within a relatively short time, a few hours or at most days" (p. 940). Also, the type of change which the S produced was theoretically limited by his/her constitution. As noted earlier, Rorschach believed that the number of M responses could only be increased if the S already produced several of these responses normally. Color responses, on the other hand, could be elicited from individuals who do not normally produce them simply by providing instructions to do so. Even so, the great predominance of such responses are FC and extremely seldom does one elicit a pure C response. Given these postulates, it is unsurprising that the EB generally maintained its directional valence. That is, S's who generally displayed a greater number of M's or C's most often continued to do so even under modified conditions.⁴

⁴Rorschach suggests that "humor" or mood can also affect the EB. Most often this influence is shown by an expansion or contraction of number of responses. Yet the ratio usually remains the same even though it can be drastically changed. "The state of being in 'good humor,' for example, results in a normal ambiequal experience . . . of the introversive sort" (Rorschach, 1942, p. 94).

Rorschach suggests that "factors necessary for good visualization of forms are facilitated by the setting up of the conscious goal . . . implied in the request [to do so]" (p. 67). Likewise, when the S is asked to focus on providing a specific sequence of responses (e.g., W, D, W, D), the form quality drops. There is a clear indication that if the S's attention and self-control is directed toward producing a specific type of response, other types of response show a decrease in adequacy. Further, it should be noted that there is a large individual variation in the ability to utilize instructions to change one's performance. Thus, form quality can be assumed to be modifiable in some S's, but must be examined with respect to other profile characteristics.

As suggested above, factors influencing the production of W responses also held Rorschach's attention. Interestingly, he found that it was easier to decrease the number of W responses than to increase their production. From this and other observations, he draws the conclusion, "Subjects who interpret many wholes in the usual test are able to increase the number by spurring on their 'volition to make complicated performances.' On the other hand, those subjects who give few W's on the usual test prove their inadequacy" when asked to focus on producing as many W responses as possible (p. 67).⁵

⁵Rorschach (1942) also examines such issues as the production of original (O) and Animal (A) responses. These are not addressed herein because the author's major intent was to demonstrate that Rorschach had anticipated many later criticisms and research questions generated about the test.

The importance of the previous discussion is not that any specific hypothesis is correct but that Rorschach established the practice of examining the factors external to the S that influence inkblot performance. Rorschach, himself, did not assume that the test was impervious to factors other than the person's intraphysic structure. Here it is important to stress that many of the later controversies regarding the Rorschach Test arose out of narrow or selective interpretation of Rorschach's work or as criticisms of extensions on his work (Carp and Shavzin, 1950; Fabrikant, 1953; Keyes, 1954; Kurtz and Riggs, 1954; Leventhal, 1956; Phares, Stewart, and Foster, 1960; etc.). As indicated by the work cited in earlier paragraphs, Rorschach's own studies are compatible with the statement made by Phares et al. (1960) that "no longer does it appear possible to accept the beliefs of the projectivists, . . ., that the psychological determinants of every projective response are basic and general or that such tests tap the durable essence of personality equally in different individuals" (p. 28).

Having established the initial history of such research, this paper will review later studies in which instructions to the Ss, the Ss' previous experiences, examiner characteristics, and setting events are examined regarding the differential influences on the response process. Next, several papers relating to conscious negative manipulation of one's presentation (malingering) will be examined. The research reported in these reviews was generally restricted to that which employed unaltered Rorschach plates administered under relatively normal testing conditions. Additionally, although much

research has been performed on individuals in altered states (e.g., under the influence of mescaline, Guttman, 1936), the present review examined individuals who were in a "normal" state of consciousness. Finally, because leading Rorschach authorities held differing views regarding such issues as seating and instructions to the patients, wherever possible, opinion was excluded in favor of research findings.

Effects of Instructional Differences

As indicated earlier, a variety of factors can affect the manner in which the subject responds to the Rorschach, not the least of which is the S's personal definition of the test (Schachtel, 1945). As pointed out by Schachtel, "The testee experiences and defines the Rorschach situation according to the cultural and personal pattern which in general determines his personal attitudes. He defines it on the basis of his previous experience in terms of his needs, fears, wishes, interests, and strivings as they are activated by the Rorschach situation (p. 448)."

One might argue that few people actually have experience with inkblot testing, and thus have no experience on which to base their impressions. Exner (1974) answers this question by pointing out the degree to which testing in general has become a part of the American culture. Further, he states, "most subjects will have some familiarity with the inkblot method, whether through the news media, educational experience, or relationship with others who have been administered the Rorschach" (pp. 26-27). Additionally, quite limited information can influence the S's performance. Luchins (1947) reports

that medical patients who were referred to the neuropsychiatric unit of an Army Medical Center because of failure to respond as expected to treatment often restricted the types of precepts that they reported because of their fear of being labeled as being a "psycho" (p. 782). Also, such benign factors as occupation prior to induction into the service, literal mindedness, previous experience with a variety of tests in the military, etc., appeared to influence the attitudes and approaches individuals displayed in performing the Rorschach.

Instructions to the S prior to administering the test would theoretically affect the S's approach to the testing. With this hypothesis in mind, one might consider that there are several similar "Rorschach Tests," but that the results obtained with one set of directions (e.g., Beck) would not necessarily be the same as those obtained when using another set of instructions (e.g., Klopfer). It should be noted that such views as whether to tell the subject to report everything he/she sees, the use of practice blots, the timing of inquiry, the use of encouragement, etc., have been conflictual issues of between differing systems of Rorschach evaluation. At the time of this paper only two studies have been reported which attempt to evaluate the differences that occur as a result of differing initial instructions; both of these studies are reported in Exner's (1974) first volume. The first, by Goetchens (cited in Exner, 1974), attempted to evaluate the differences in the psychogram which arise when the Beck and Klopfer systems were compared. She found that Beck instructions (BI) produced significantly more response and unusual

details, while Klopfer instructions (KI) "tended to give more pure F responses" (p. 28). Exner (1974) expanded on the above work and collected 835 complete protocols from 153 examiners who employed either the Beck, Hertz, Klopfer, Piotrowski, or Rapaport instructions. He found that KI produced significantly fewer responses than did the instructions from other systems, which produced no differences except that the Rapaport instructions (RI) resulted in significantly more responses. Likewise, the KI also resulted in significantly more W and insignificantly fewer F responses than did the other four systems. Thus, there is reason to question the type of instructions used when evaluating a S's performance on the Rorschach.

The next question that follows is that if the above minimal differences in instructions result in changes in the psychogram, how could instructions to attend to specific blot characteristics affect the response profile obtained. Two major approaches were taken in attempting to answer this question. The first was simply to describe to the Ss those attributes in the blot for which he/she was intended to look. The second approach was to provide the Ss with definitions of positive or negative characteristics which individuals who respond in a given manner display. Then, if test Ss consistently displayed or avoided the suggested manner of response, the inference could be made that the Ss were controlling their presentation.

The initial research of the first type was the cooperative dissertation research performed by Gibby, Milton, and Pottharts under the supervision of Max Hutt (Milton, 1982). Each of the above researchers examined how specific instructions affected a given

manner of Rorschach performance. Milton (1949) found that by simply instructing his Ss to report as many human movement responses as possible, they were able to significantly increase the number of such responses. Also, he found a corresponding decrease in A% and no effect on W, F+%, number of content categories, sum C, sum Y, or space responses (S). It should be noted that the form quality of the Ss' responses did not change and that the increased Ms were generally of good form. It is interesting to note that Milton performed his research using college students who presumably would already have a high probability of producing M responses. Further, he stated, "Certainly it cannot be said that subjects having definite psychopathological symptoms would respond similarly to the experimental conditions as did our subjects" (p. 82).

Whereas Milton (1949) examined variables related to EB, Gibby (1951) examined performance which is assumed to be related to intellectual functioning: "(a) the accuracy of form perception (F+); (b) the ability to be free from stereotyped associative sets (A%); (c) productivity (R); (d) range of content (Content category); and (e) area of the blot utilized ((D + Dd)% and (W))" (p. 6.). Again, he found that simple instructions were able to produce significant changes in some response variables (D + Dd)%, W, A%, and R. These changes were producible both through direct and indirect means. For example, the number of W responses could be reduced through instructions to produce D and Dd responses or by asking the S to produce as many M responses as possible. Gibby concluded that "change in the 'intellectual variables' may be made at a conscious volitional level"

(p. 25). Thus, one must consider the S's motivation and knowledge of the test results in interpreting the results.

The second approach to examining control of one's presentation, that of leading the Ss to believe that they should respond in a given manner, has proven to provide equally dramatic results. Coffin (1941) and Abramson (1951) demonstrated that if experimental Ss were led to believe that high status persons scored in a certain manner, they (the Ss) too, would score in that manner. As an example, Abramson established three groups from an experimental pool of 122 Ss who had taken a Rorschach pre-test. On their formation, "the groups were equated on the relative amounts of W, D, and Dd responses given on the first test, and on sex, age, ACE Psychological Examination for College Freshmen L and Q stanine scores, years in college and number of courses taken in psychology" (p. 38). One experimental group (group W) was then retested after being told that successful business and professional people frequently report many W responses. The second group (group D) received the information that successful individuals report many detailed answers and then was post-tested. The control group received no such information prior to the post-test. As would be expected, each experimental group showed significant changes in their performance which were consistent with their ideas regarding how successful individuals respond. It should be noted that other unexpected changes accompanied the changes in choice of location. Group W also produced significantly more non-F determinants, and animal content; at the same time it showed a significant decrease in the F+%. Along with the increase in D responses, Group D

significantly increased R. As suggested in previously cited research, the determinants, R, and location variables are not entirely independent of one another.

In addition to the above examples, a variety of differences in instructions to the Ss have been demonstrated to affect test performance. Several authors attempted to establish a more clearly ego involved set at the time of the testing (Calden and Cohen, 1953; Cox and Sarason, 1954; Henry and Rotter, 1956; Mitroff, 1973; Peterson, 1960). Henry and Rotter's (1956) study is an interesting example of this approach. They administered the Rorschach to two groups of female undergraduate psychology students using identical directions except that the experimental group (Ex group) was told that the test was employed to detect serious emotional disorders. As might be expected, the Ex group produced significantly more popular (P), animal (A), and good form (F+) responses. Also, a higher percentage of responses used form as the only determinant. Similar results were found by Caldin and Cohen (1953) and Mitroff (1973), while Cox and Sarason (1954) found only trends in the suggested direction. To paraphrase Henry et al. (1956), these findings are not solely important with respect to the influence of instructions, but must lead one to question the influence of the S's expectations and personal definition of the testing.

Up to this point the research cited has suggested that the S's purposeful action can and does affect the quality and quantity of percepts reported. Epstein, Lundbord, and Kaplin (1962) questioned the degree to which the S's expectations regarding the testing

procedure influence productivity. They established three conditions in which all Ss were given the "usual instructions." The control group who received cards I and II with the remainder of the deck of cards in clear view gave a mean of 3.5 and 3.1 responses on the first and second cards, respectively. In contrast, both experimental groups (A & B) were presented card I without any indication regarding the entire length of the test. A combined mean of 11.1 responses was obtained. Group A was administered the second card in the same fashion. The remaining eight cards were placed on the table in front of group B prior to the administration of the second card. Not unexpectedly, group B displayed a significant drop in the number of responses when compared to group A. From these results, the conclusion was drawn that Ss attempt to appraise the Rorschach test and budget the energies that they have to expend. Although these results are quite dramatic, they must not be taken at face value. The extrapolated number of responses for experimental group A are significantly higher than obtained when using any of the following systems: Exner, Beck, Klopfer, Hertz, Piotrowski, or Rappaport (Exner, 1974). This was true even though some of the approaches advocate that the S not be shown the number of cards during the free association period (e.g., Exner). Further, it is unfortunate that Epstein et al. did not specify what instructions were employed, who administered the test, and whether the examiner(s) knew the purpose of the test. As will be expanded upon later, there is good reason to suppose that the magnitude of the results was increased by the examiner's

expectations. Even so, the point that Ss may be influenced by seeing the number of cards in advance is well taken.

Finally, in the discussion of the impact of instruction on the S's performance, one must recognize that the type of instruction must be considered. Rorschach (1942) calls attention to this point when he suggests that Ss who are told to produce as many original responses as possible produce the same type of protocol that they would have produced without such instruction. Fabrikant (1953) reported that the percentage of response categories reported was not influenced when Ss were instructed to look for color, movement, and shading. Likewise, Phares et al. (1960) reported that instructions to provide the precepts most often reported by others did not affect their Ss' test protocols. These findings, in conjunction with those reported earlier, suggest that simple, straightforward instructions which specify exactly how performance is to be altered are more efficient in producing changes in one's Rorschach performance than are instructions which require the S to make complex judgments and/or to look for several types of determinants at one time.

Having discussed how explicit or implicit instructions influence the Ss' performance during the free association period of the Rorschach, a similar discussion regarding the inquiry appears to be merited. One question which has raised controversy is whether the E should ask the S regarding the use of specific determinants in the formation of a response. Reisman (1970) and Zax and Stricker (1960) both demonstrated that direct inquiry produced virtually no differences in the quantity or quality of determinants reported by their

Ss. FV was the only determinant which displayed a significant change in frequency due to a direct inquiry (Zax and Stricker, 1960) and there were conflicting results. Even so, Zax and Stricker did note an important finding when they recognized "that the various determinants (with the exception of FV) are characteristically elicited at certain times in the Rorschach examination and that these times vary with the determinant" (p. 331).

Applebaum (1959), Beck (1961), and Klopfer (1954) all recommend variations of the testing procedures, "testing the limits," following routine inquiry if the S has not responded fully enough to allow an adequate understanding of his performance. This "testing of the limits" can be as structured as pointing out specific areas of the blot and asking the S to report which this might look like (Beck, 1946; Klopfer, 1954), or as informal as handing the S the entire deck and asking him to report anything he might have missed the first time he saw the cards (Applebaum, 1954). These and related approaches are expected to obtain further responses or greater elaboration on the response already given.

This section was intended to demonstrate that many processes can influence the manner in which the S responds to the Rorschach. Explicit or implicit instructions and/or encouragement, and the establishment of ego involvement with test performance have all been demonstrated to influence the manner in which one organizes and approaches the Rorschach situation. Similarly, such factors as the E's presentation, expectations, and reactions could theoretically have an impact on the S's response.

Examiner Characteristics

The gender of the E is perhaps the first, most obvious, factor that impresses the S in his/her interaction with the E. Although psychologists who employ projective testing would generally agree that Ss have rather stable patterns of needs, adjustment strategies, and traits, they have generally failed to examine how these issues interact with the gender of the E to influence the personality picture expressed; it would seem logical that differing individuals may activate differing psychodynamic issues in the S and that these issues would be reflected in the testing situation. Several authors have examined the influence of the E's gender upon the S's response productivity (Alden and Benton, 1951; Harris and Masling, 1970; Milner and Moses, 1974). Results to this point appear to be inconclusive. Harris and Masling (1970) suggest that the male E and female S pair produces the greater number of responses per protocol. In contrast, Milner and Moses (1974) and Alden and Benton (1951) did not find that the sex of the examiner influenced the S's productivity. The production of percepts containing sexual content is the second area which has received attention with respect to the E's gender. It has been hypothesized that the presence of female Es would elicit some degree of censoring in the production of responses (Alden and Benton, 1953). Like the prior findings on the influence of gender, no definite statement has been achieved. Whereas Alden and Benton (1953) did not find that the gender of the E affected the number of sexual responses produced by VA patients, Curtis and Wolf (1951), using similar Ss,

did find a significantly higher number of sexually oriented responses when comparing protocols obtained by three female Es with protocols obtained by seven male Es. One study (Milner and Moses, 1974) which employed both male and female Es and Ss found that opposite gender protocols resulted in the fewest number of sexually toned responses. Rabin, Nelson, and Clark (1954) found the same results, but they used only male Ss. Using one examiner of each sex, Alden and Benton (1951) found no sex related differences. Even so, they qualify their findings by pointing out that the personal attributes of either, or both, Es could have negated or superceded the results arising from gender differences. At present, several important questions regarding the sex of E have not been answered. For example, one might want to know if patients with a given type of psychopathology are prompted to give sex responses to the Rorschach when tested by males as opposed to females or vice versa. Similarly, one could question whether the E's sex has an effect on the determinants employed in forming a response. Just as these questions are unanswered, many other unstated questions must be examined prior to understanding the impact the E's sex on the Rorschach protocol obtained.

Baughman (1951) strongly emphasizes the importance of evaluating the E's effect when he states that one cannot consider the E to be an objective psychological instrument. To him, "objectivity implies that one examiner can be considered as interchangeable with another so that psychographic data obtained by one are essentially the same as would have been obtained by the other" (p. 246). Further, "one has reason to expect that projective data will be much more

influenced by the relationship existing between the subject and the examiner than will be the information reflected in the more traditional psychometric examinations" (p. 241). Lord (1950) was the first to empirically test these suppositions. She employed a rather complex re-test procedure in which 36 Ss were tested in groups of 12 under three conditions by three different Es. Each group was tested under conditions which were designed to establish a positive, negative, and neutral atmosphere with no two groups receiving the same treatment in the same trial. Because of her incomplete design, it is difficult to accept her findings without later validation. Even so, if one collapses the conditions and performs separate tests for the main effects, as she did in a round-about fashion, then one finds that the E and trial both influenced the protocols obtained. That is, the E elicited protocols that differed from the protocols elicited by other Es irrespective of the atmosphere, the trial, or interaction effects. Further, the Ss produced significantly different protocols across trials irrespective of the other conditions. This study was probably less important for its findings than for its historical precedent; it precipitated a series of studies on E effect.

Other authors have followed up on Lord's (1950) work on examiner effect. Baughman (1951), Gibby, Miller, and Walker (1953), and Guilford (cited in Sanders and Cleveland (1953) performed retrospective studies in which they examined large numbers of protocols to determine if differing Es consistently elicited similar protocols. Although such studies have questionable internal validity, it should be noted that all authors found results which were similar to those

reported by Lord (1950). Guilford (cited in Sanders and Cleveland, 1953) found that different Es elicited significantly different numbers of responses (R). Baughman (1951) supported the above finding and also found differences in the areas of location choice, determinants used, and content. Gibby et al. (1953) failed to find differences in R, but did find differences in the FC and FY variables. Even so, when they looked at the percentage of responses in which each variable (R, F, M, FC, CF, FY, YF, V) was expressed, there were only two significant differences -F and YF. It should be noted that the finding regarding YF is questionable because the inter-scorer reliability in this variable is only .66. Even though all of the above studies can be criticized on the basis of experimental design, it does appear that there is validity to the points that are being made. Next, it may be helpful to examine E eluded differences from a more strictly experimental point of view.

Sanders and Cleveland (1953) tested similar hypotheses through a complex experimental procedure. They pre-tested a pool of 12 potential Es with the Rorschach, nine of whom they employed in the experiment. Each E was trained in administering and scoring the Rorschach according to Beck's procedures. Additionally, these Es were taught to score animal movement (FM), inanimate movement (m) and achromatic color (C') as recommended by Klopfer (cited in Sanders and Cleveland, 1953). Next, they established a pool of 270 Ss who were matched on the basis of age, sex, race, and education. From the subject pool, each E was assigned 30 Ss on an accidental basis which Sanders and Cleveland suggested approximated random assignment. At

the completion of each testing session the S was asked to complete an adjective checklist regarding his/her perception of the E's behavior; level of overt hostility and anxiety were the areas sampled. Sanders and Cleveland scored the Es' Rorschachs with attention to covert anxiety and hostility. Finally, the data collected by these examiners was evaluated by multiple analyses of variance.

As would be expected, the personality of the examiner significantly affected the type of protocols they elicited across all conditions. When compared to low overt anxiety Es, those Es who were high on overt anxiety elicited significantly "more general responsiveness (R), more oppositional trends (S percent), and more responsiveness to external and emotional stimuli (C)" (p. 44). Those Es who scored high on covert anxiety elicited significantly more human (H), human movement (M), and diffuse shading (Y), as well as higher hostility scores, when compared to low overt anxiety Es who elicited more animal response (A). E hostility also resulted in significant differences with high overt hostility Es eliciting greater Y, A%, and less hostility when compared to low hostility Es. Finally, when comparing Es with high and low covert hostility, Sanders and Cleveland found that the former elicited significantly greater A, Y, and hostility scores.

The above results are rather impressive and would clearly cast doubt on the validity of the Rorschach were it not known that the amount of total variability attributable by E differences ranged between 3-7% (Sanders and Cleveland, 1953). Thus, when comparing the protocols obtained by different examiners, one must question if

these differences have a practical impact on the personality picture which occurs. Further, if novice examiners elude such little variance in the protocols they obtain, then one must question whether more experienced examiners are not even more free of such variance.

The discussion of E effects could not be concluded without examining the work of Berger (1954), who found that the Rorschach protocols obtained by eight VA trainees did not show significant differences when the following areas were examined: R, F+, M, ΣC, #Y, #V, P, S, and A%. He did, however, find that there was a significant relationship between the E's production of P and S responses in their own Rorschach and the number of similar responses produced by their Ss. These findings again speak to the limited nature of the influence exerted by examiner differences.

The research in the immediately preceding paragraphs provides a strong indication that E differences do influence Ss' test protocols to some degree, and therefore must be considered. As suggested by Gibby et al. (1953) and Baughman (1951), it may be beneficial for each E to consider how he/she influences the results which he/she obtains. Further, as suggested by Joel (1949), it may be beneficial to keep a record of the E's feelings and the affective climate of the testing situation. There is no strong evidence to support the conclusion that E influences are pervasive enough to warrant a cessation in the usage of the Rorschach. Further, the above findings suggest that Gibby et al. (1953) were making an overstatement when they said, "it is also probable that certain examiners tend to obtain

successively dysphoric records while others with comparable patients will seldom elicit such reactions" (p. 426).

Examiner Expectations

One factor which has been shown to contribute to the E influence is the E's expectations (Marwit and Marcia, 1967; Marwit, 1969; Masling, 1965; Strauss, 1968; Strauss and Marwit, 1970. Masling's (1965) study is representative of the general approach taken in examining this issue. He utilized non-clinical psychology graduate students (eight male and six female), all of whom had taken previous testing courses covering the individual administration of intelligence tests. The Es volunteered to participate in evaluating "a quick more efficient method of teaching the Rorschach procedure" (p. 198). During the training, half of the group was led to believe that experienced Es elicited many human responses (H), while the other seven Es were provided information which suggested that experienced Es elicited many animal responses (A). As expected, the Ss produced test protocols which were consistent with the Es' expectations. Of note is that the Es communicated their expectations without an awareness on the Ss' part and without reinforcing the expected responses significantly more than other responses. Marwit and Marcia (1967) obtained similar results when Es were led to believe that their Ss would produce either a high or low number of responses. This occurred even when the E was allowed to develop his/her own expectancies.

Strauss (1968) performed similar research in which he failed to find corresponding results. One possible explanation is that he employed Es who had been trained in projective testing. After establishing an expectation regarding each individual S, respective of the EB (introversive vs. extroversive), he then had the examiner predict the Rorschach psychogram that they would obtain from the S. The anticipated psychograms validated that the appropriate expectations had been established. Even so, the test protocols obtained did not correspond with expectations; no significant differences were found when comparing the introversive and extroversive expectancy groups on the M and sum C variables.

Being unsure of the factors which resulted in the differences between his forementioned results and those obtained by other authors (Marwit & Marcia, 1967; Masling, 1965), Strauss in cooperation with Marwit (1970) twice repeated the earlier study using a population of Es similar to those employed in other studies. Again, not only was there a failure to find significant differences regarding the EB, but also previous findings regarding the expectancy influence on R were not replicated. With these findings in mind, Strauss and Marwit (1970) concluded "that bias effects are less pervasive than previously assumed" (p. 448).

One study attempted to establish how the Es' expectancies actually produce changes in the Ss' Rorschach protocols (Marwit, 1969). From his review of data collected in a previous study, Marwit and Marcia (1967), he concluded that expectancy results were communicated without any obvious changes in reinforcement patterns or

differences in approaches to the inquiry. Marwit then hypothesized that Es model their expectancies to their Ss. This was examined by establishing expectancies and then video taping the testing procedures. The E's performance in the video-taped sessions was then evaluated on the basis of the following dimensions: "Hostile-Pleasant, Self-assured-Anxious, Careless-Courteous, Loud-Soft-spoken, Active-Passive, Extroverted-Introverted, Responsive-Unresponsive" (p. 347). It was found that the similarities between the Es' and Ss' behavior did not support the premise of a modeling effect; those behavioral similarities which arose were considered to be complementary interactions rather than modeling effects. Thus, Marwit was forced to conclude that modeling was not related to bias. Rather, he suggested "that expectancies are communicated in the structuring of the task" (p. 352). This position is consistent with the suggestion made by Kintz, Delprato, Mettee, Persons, and Schappe who warn that the "E's mood may change if the data are contrary to his expectations . . . , and therefore result in subtle changes in the task presentation" (p. 227).

Having established that at least minimal E influences do exist and that they do not appear to be transmitted through modeling, it is of interest to examine the effect of reinforcement on the S's test performance.⁶ Several authors have demonstrated that verbal and

⁶Research findings derived from inkblot procedures other than the Rorschach were included in this discussion because of the rather definitive findings and because research specifically on the Rorschach is limited.

nonverbal reinforcement have an effect on the S's inkblot performance (Bouley, 1969; Dinoff, 1960; Gross, 1959; Magnussen, 1960; Simkins, 1960; Wickes, 1956). Magnussen's (1960) work is a good representative of such studies, which are all quite similar in nature. He tested three groups of 10 male Ss who received either verbal reinforcement (an E's comment of "Uh huh"), nonverbal reinforcement (E's head nod), or no reinforcement after the production of a popular response (P). Both reinforcing conditions produced significantly more Ps than did the control condition. Like the other authors cited above, he found no significant differences between verbal and nonverbal reinforcement. Further, the Ss were not aware of the purpose of the experiment and therefore were not considered to have consciously manipulated their performance. Dinoff (1960) expanded upon these findings in demonstrating that the Ss did not need to be aware of the reinforcing conditions to modify their performance. Thus, the E must be alert that he/she does not inadvertently reinforce those responses that validate his/her expectations.

Ss' Experiences

A real question which must be answered is to what extent does the Rorschach measure longstanding intrapsychic structure, and to what degree is it subject to disruption resulting from experiences which occur immediately prior to the testing situation. As with the other areas already addressed, a number of authors have examined this question and have reached conflicting conclusions (Fabrikant, 1953; Keyes, 1954; Knopf, 1954; Norman, Liverant, and Redlo, 1952; Rabin

et al., 1954). Norman et al. were probably the first to attempt to answer this question by establishing a superficial mental set immediately prior to administering the Rorschach. This study is of consequence more so because of the later research they stimulated rather than because of their findings; the findings obtained or the lack of findings must be evaluated in terms of their unusual experimental design and the extremely small number of Ss involved. Two experimental conditions were evaluated using two groups of five Ss per condition. In each condition one group was initially introduced to the experimental variable and tested immediately, while the second group received only the Rorschach during the first session. At the time of the second testing, the previously untreated group received the treatment while the previously treated group was only administered the Rorschach. Following the data collection, t-tests were employed to compare the results obtained under treatment conditions with data obtained under control conditions; no attempt was made to control for order of administration of the various conditions.

Prior to discussing the results, a description of the treatment will be provided. This study was initiated by requesting volunteers to participate in two studies. The "control condition" involved the simple administration of the Rorschach with no explanation or purpose, while the treatment was presented as a study of advertising preference. In the treatment, each group was asked to review either a 40-page booklet of "brightly colored advertisements" for food products, or a booklet containing pictures of people in motion. Individuals who received the first treatment were expected

to show an increase in food%, FC%, and CF+C%, whereas individuals in the second group were expected to report more M%, Fm%, and Total Movement%. No significant differences were noted in these areas. Thus, Norman et al. concluded ". . . it was found that responses which might be expected to alter because of the nature of the 'set' remained stable when compared to responses in a normal situation . . ." (p. 264).

A similar study has failed to find treatment related results after establishing an unconscious set in their Ss, while another study did demonstrate mixed results. Kurtz and Riggs (1954) established a set to perceive animals prior to administering the Rorschach. They expected a greater A%, D%, number of Ps, and number of FM responses, none of which achieved significance in the expected direction. Although their results are impressive, one criticism must be raised. The unconscious set was for the recognition of the written names of animals, not for the perception of animal forms. If they had established an unconscious set for the perception of animal forms, there may have been greater generalization to the Rorschach situation. The work of Rabin et al. (1954) serves to make this criticism salient. They established the sets to perceive human sexual and anatomy forms prior to administering the Rorschach. Mixed results were obtained in that the unconscious set to see anatomical percepts did not transfer to the testing situation, whereas the set to perceive sexual forms did generalize to the Rorschach situation. From these results, one must conclude that some unconscious sets are of sufficient strength to spill over into the Rorschach testing

situation. Even so, these findings must be viewed in the context of Rorschach's (1942) statement that extra-test biasing experiences usually have a short-term effect. It appears reasonable to assume that the influence of such biasing experiences is of short duration and would not extend beyond the S's immediate past, a few days at most. Therefore, it may be important to determine if the Ss had any particularly poignant experiences in the immediate past.

Perceptual training is another variable which has been shown to influence the S's performance on the Rorschach (Keyes, 1954; Knopf, 1954; Leventhal, 1956). Leventhal demonstrated that two forms of perceptual training can significantly increase or decrease the number of W and Z scores that a S produces. By simply having the Ss learn to recognize embedded figures and to complete incomplete figures, he was able to significantly manipulate (lower and raise, respectively) the production percepts involving whole responses and perceptual organization. Likewise, Keyes demonstrated that training on the completion of unfinished Gestalts significantly altered the S's production of W responses; the Street Gestalt test developed by Thurstone (cited in Keyes, 1954) was used for training purposes. Finally, Knopf found that perceptual training in the recognition of animals or animal parts did not significantly change the personality picture one produced. Again, one must consider the variable examined, timing of treatment, and the rigidity of the individuals being examined when attempting to determine the degree to which the Rorschach protocol has been influenced by the S's recently preceding experience.

The above studies have attempted to influence the S's perceptive experiences by inducing an unconscious set and by special training. Stein (1960) demonstrated that the Ss' perceptual experiences could be manipulated by a much more simple process, simply rotating the card for the Ss who did not do so spontaneously in the free association period. This procedure not only increased R by 30%, but also served to improve the split-half reliability of the test.

Two other studies which demonstrated how easily a S's performance can be modified by his/her immediate experience were reported by Campbell and Fiddleman (1959) and by Kimble (1945). Campbell and Fiddleman found that the description of the E's status influenced the protocol obtained. Es who were ascribed high status elicited a significantly higher R as compared to Es who had the same or only slightly higher status as the Ss. Kimble (1945) found that by administering the Rorschach in a "social situation" with two of the S's friends present, one educed a significant change in the sum C which the S produced. Although neither of these modifications represent sound testing procedures, it must be again noted that subtle or minimal changes in the administration of the Rorschach does artificially change the picture presented.

Several studies have demonstrated that externally induced anxiety does significantly influence the protocol produced (Eichler, 1951; Kates and Schwartz, 1959; Shalit, 1965). Eichler induced anxiety in his Ss by testing them while they were attached to a device which was presented as delivering electric shocks on a random basis with the intensity of the shock being governed by the interval

between shocks; obviously when no shocks occurred the Ss believed that the first shock when it came would be quite intense. Shalit evaluated the effects of anxiety by comparing the Rorschach protocols of sailors that were obtained under normal clinical conditions and those obtained while at sea under severe storm conditions. Kates and Schwartz induced anxiety by providing the Ss with a negative personality description that reportedly reflected their earlier test findings. They then administered the Rorschach and found that the complexity of the Ss' responses significantly decreased. All of the above studies produced significant differences in the Ss' test protocols. It is felt that the actual differences obtained under these extraordinary conditions are of little importance. Rather, the above research is important because it suggests that the S's anxiety in the clinical analog, the clinical testing situation, could distort the picture which he/she presents.

The studies reviewed in this section suggest that one must consider the S's experiences immediately prior to the testing in evaluating the protocol obtained. For some variables, especially those with intense intrapsychic stimulus value, unconscious sets must be considered. On the other hand, it seems that many of the psychographic ratios and percentages are less subject to influence. Similarly, the E must be alert to S's experience with the test or related experiences respective of perceptual training and/or related expectations. For example, if the S provides an inordinantly high number of W or D responses, it may be helpful to understand how the S felt the test was defined. Lastly, the E must be alert to

maintaining the testing frame and avoid introducing variables which would induce anxiety or otherwise influence the Ss' perceptual processes.

Situational Influences

To this point, a variety of factors have been shown to influence the Ss' response process with variable efficacy. The final area to be examined respective of the "normal" testing procedure involves setting events. Such issues as seating, test order, etc., merit consideration. (Previous sections have already examined the effects of differential instruction and inquiry methods.) Exner (1974) provided a rather thorough discussion of the "seating" issue. From his discussion and from the material presented herein, the following summary statement can be drawn: The seating of the E and the S should be such that the E is not in a position to inadvertently reinforce, punish, or otherwise unduly influence the S in his/her production of response. Exner agrees with Klopfer and Hertz (both cited in Exner, 1974) in suggesting that the side-by-side seating arrangement is optimal.

The order of psychological test presentation is governed by tradition perhaps more than by empirical evidence. Rappaport, Gill, and Schafer (1945) recommend presenting the Rorschach last in the test battery with little explanation of their rationale. Brown (cited in Grisso and Meadow, 1967) and Piotrowski (1958), on the other hand, advocate administering the Rorschach prior to the Weschler Scales. At this point there is little support for either

position. Three studies (Gibby, Stotsky, and Miller, 1954; Grisso and Meadow, 1964; McCraw and McNabb, 1981) suggest that tests administered prior to the Rorschach do not appreciably influence the test protocol obtained. In contrast, Van de Castle (1964) reported that the administration of the Thematic Apperception Test (TAT) and Draw-A-Person test prior to the Rorschach significantly influence the production of H.

Gibby et al. (1954) administered the Rorschach under five different conditions to 100 psychiatric patients, "most" of whom were neurotic. These conditions included either administering the Rorschach alone or after one of the following psychological tests: Bender Visual Motor Gestalt Test (BG), TAT, Wechsler Bellevue (WB), and Goldstein-Scheerer Tests of Abstract and Concrete Thinking. They then evaluated the scores obtained on R, M, Total Shading, Total Color, W, D, Dd, H, and A across the four conditions by the use of analyses of variance and found no significant differences. From these findings, they concluded that the Rorschach was not susceptible to bias induced by the above tests.

Grisso and Meadow (1967) performed a modified replication of the above study; they examined the effects on both the WAIS and the Rorschach when each was preceded by the other. As indicated by the earlier research findings, there were no significant findings when the WAIS was administered before the Rorschach. In contrast, when the Rorschach was administered prior to the Digit Span, Comprehension, and Similarities subtests of the WAIS, all displayed a significant decrement. These results suggest that the traditional format of

administering the projective tests last in the battery may serve to preserve the S's functioning on the more objective tasks as opposed to preventing a biasing of the Rorschach.

Lastly, McCraw and McNabb (1981) hypothesized that because of the nature of the stimuli utilized in the Hand Test (HT), its placement prior to the Rorschach in a test battery would elicit a greater number of H and M responses. These hypotheses were not borne out in their research. Thus, they concluded that the Rorschach is more free from interference by preceding experience than had been previously thought.

All three of the above studies are in conflict with the results obtained by Van de Castle (1964). The conflict may be explained to some degree by the fact that Van de Castle employed an extremely select homogeneous population which may be more flexible in their presentation than the other populations, especially the population employed by Gibby et al. (1954). Further, one must question the degree of E expectancy effect both with respect to the administration and scoring of the protocols obtained. Even given the possible criticisms of Van de Castle's research, the question of test order influence must remain open. It would seem that psychiatric patients, the population most frequently given the Rorschach, would be less susceptible to the influence of immediate "sets" than would "normals" (Hutt, Gibby, Milton, and Pottharst, 1950). Thus, until further research provides more definitive answers the conclusions drawn by Gibby et al. (1954) may be most reasonable in clinical practice: the Rorschach is not susceptible to bias induced by the BG, the TAT, the WB, or Goldstein-Scherer Tests.

Many of the issues addressed in previous sections of this paper could have been equally well addressed at this point. Further, such issues as lighting, time of day in which one is tested, physical setting, etc., could have been examined, but were omitted because of a lack of research with the Rorschach. Also, these issues probably influence Rorschach performance no more than other psychological tests. Possibly the best summary for this section is a reminder to the E that variations from the standard administration procedures can possibly produce unexpected and unexplainable differences in Rorschach protocols obtained.

Malingering

Previous findings suggest that the production of Rorschach responses can be influenced by a variety of factors which may or may not be in the awareness of the S or E. Further, if the S is given specific instructions, he/she is able to willfully modify his/her performance on individual variables, but may be unable to significantly modify the overall personality picture that he/she projects. Several studies have examined this question with regard to presenting an artificially disturbed picture, malingering (Albert, Fox, and Kahn, 1980; Carp and Shavzin, 1950; Easton and Feigenbaum, 1967; Feldman and Graley, 1954; Fosberg, 1938, 1941; Seamons et al., 1981). From these studies and from clinicians' retrospective evaluations of Rorschach protocols they believed to be "faked," many conclusions have been drawn which were often in conflict. For example, Exner (1978) stated, "The malingering of pathology is . . . probably

impossible if the protocol is collected with standard procedures" (pp. 303-304). In contrast, Albert et al. (1980) found that Ss could alter their performance to the point "that presumed experts in the interpretation of the Rorschach were unable to detect faking of psychosis by normal individuals who had no previous experiences with the Rorschach and who knew relatively little about psychosis" (p. 118). As with other topics previously covered, studies on malingering are few and frequently have conflicting results.

Fosberg (1938) was the first to examine this issue of malingering, or consciously making one's "worst impression," in his attempts to determine if "two or more Rorschach records give identical personality pictures, where we do not expect any changes in the real personality . . ." (p. 12). He did this by having two Ss take the Rorschach under four conditions: standard administration, instructions to make the best impression, instructions to make the worst impression, and instructions to find specific determinants. The results obtained were evaluated using the chi-square technique to determine if they were drawn from the same population; no significant differences arose in determinants, content categories, or location scores, suggesting that the four protocols represented the same population (person). From these findings, he concluded that "the Rorschach test does not lend itself to manipulations based upon the subjective personal estimate of character, good, bad, or indifferent . . . but faithfully traces the more permanent picture" (p. 30).⁷

⁷Fosberg did recognize the statistical difficulties which arose from the use of data categories that are not wholly independent

Having obtained the above results, Fosberg (1941) performed two modified replications. In one, he repeated the above experiments exactly using 16 Ss. Rather than employing the chi-square technique, he made pair-wise correlations across the four conditions. When comparing any two conditions, the overall correlations were .839-.899. Location and determinant correlations were .913-.944 and .787-.853, respectively. As would be expected, the content categories employed correlated to a somewhat lesser degree, .587-.695. In the second replication, he employed 50 Ss (25 of each sex) using the standard administration and instructions to make the best and worst possible impressions. Again he obtained extremely high pair-wise correlations. Overall correlations ranged from .821 to .929 for males and from .905 to .944 for females. Additionally, correlations for both groups were in the .80's and .90's for location variables and determinants, while the correlations for content categories were primarily in the .70's and low .80's. From these results, he concluded that "the test cannot be faked" (p. 83).

Following Fosberg's work, no studies on malingering were published until 1950 when Carp and Shavzin published another modified replication (Easton and Feigenbaum, 1967). They administered the Rorschach twice to two groups of 10 Ss; one group received the instructions to make a good impression on the first testing and directions to make a bad impression on the second testing, while the other group received the same directions in a reversed fashion.

of each other (e.g., A and H) and those resulting from the use of data that occurred with limited frequency.

Multiple t-tests displayed only one significant difference. Considering the experiment-wise error rate of $\alpha < .6764$, the significant difference obtained on organizational activity (Z) could have arisen by chance and must be evaluated critically. Acknowledging these findings, Carp and Shavzin suggested that intragroup variability negated the significant differences which should have been observed. They justified this position by correlating the Ss' performances on the two administrations. Of the 22 factors examined, nine displayed correlation coefficients of .80 or higher. The remaining correlations ranged from .16 to .69. Noting that their findings were quite different than those obtained by Fosberg (1941), Carp and Shavzin stated that "it is possible for some subjects to distort their protocols depending on the set to make a 'good' or 'bad' impression" (p. 233).

Feldman and Graley (1954) employed a Static-Group Comparison Design in evaluating the influence of instructions to "give the worst possible impression" on the S's Rorschach performance (p. 327). They established two treatment groups, one of which was administered the Rorschach under the "standard group form" and retested with instructions to malingering (p. 327). The second group was simply given the Rorschach with instructions to malingering. One must recognize that their data was subject to several threats to internal validity and must be evaluated with considerable care. Particular difficulty was presented by the threats of selection, history, regression, and maturation (Huck, Cormier, and Bounds, 1974). Thus, one cannot assume that the differences between the groups resulted from the treatment.

In that the results are of such questionable validity, this discussion will focus on observed and reported S behaviors rather than the statistical treatment of the data. When attempting to malingering, the Ss reported the following strategies: "(a) avoiding the normal responses; (b) emphasizing sex; (c) mentioning symptoms of maladjustment; (d) using a specific mental disorder as a guide; (e) using an unspecified mental disorder as a guide; and (f) stressing aggressive and gory concepts" (p. 332). Also in their attempts, the Ss produced protocols that Feldman and Graley (1954) considered to be more similar to neurotic than psychotic records. Finally, these Ss "conceived of severe personality disorders as being characterized by uninhibited expressions of sex and aggressive content" (p. 333). The above observations are of particular interest because they suggested questions addressed in later studies. These included: an evaluation of the importance of understanding a particular disorder in attempting to simulate it on the Rorschach, an examination of the Ss' ability to produce psychotic as well as neurotic profiles, and developing an understanding how a negation of usual percepts affects the protocol in general.

Easton and Feigenbaum (1967) employed a pretest-posttest control group design to determine if instructions to malingering would significantly alter one's Rorschach performance. Unfortunately, their statistical treatment of the data obtained was inappropriate (Guilford, 1965; Huck et al., 1972). They employed t-tests to compare the pretest and posttest data within each group and followed up by comparing the differences between groups in the same manner;

either a t-test on the gain scores or an analysis of covariance would have been more appropriate. Again, the reader is left with data that he/she is unable to accept because of methodological flaws.

Until the 1980's, no research on malingering was published in which the findings were not conflicting or based on a research design with flaws. Since that time, two studies have been published which produced incompatible results (Albert et al., 1980; Seamons, 1981).

Albert et al. (1980) report a well conceived study in which they utilized Fellows of the Society for Personality Assessment in evaluating the degree to which experts could detect malingering. They established a pool of 24 protocols with six from each of the following areas: psychotic, uninformed faker, role informed faker, and normal. These protocols were then randomly assigned to groups which contained one from each condition. Next, a packet of protocols was mailed to each of the 261 Fellows with a request that a diagnosis be developed, that the judge report his/her degree of certainty about this diagnosis, that the judge evaluate the possibility of malingering, and that the protocol be rated on eight dimensions of pathology; 46 usable sets of responses were obtained.

Using the chi-square technique, Albert et al. found that uninformed fakers were determined to be psychotic significantly more often than were the control (normal) Ss. No significant differences were noted between the diagnoses assigned to the uninformed fakers and actual psychotics. In fact, the groups were diagnosed as psychotic with approximately equal frequency. Further, both groups were diagnosed as psychotic significantly less frequently than were

role informed fakers. It should be noted that the expert judges reported equivalent degrees of confidence across the experimental groups; they did not see themselves as making tentative or less confident diagnoses when reviewing the faking protocols as compared to the psychotic or normal protocols.

The findings that naive and role sophisticated fakers can produce Rorschach protocols that "experts" cannot discriminate from actual psychotic profiles are somewhat disappointing. Further, the fact that role informed individuals were judged to be psychotic more frequently than actual psychotics casts doubt on the validity of Rorschach findings when goal-oriented malingering is a possibility. These results may be attenuated somewhat by the fact that there was no consistent scoring of structural data reported. Thus, one would question if the same results would have been obtained if the judges had employed the same scoring method. This question was based on the results obtained by one judge who performed a "partial scoring." This individual identified the psychotic and informed faker accurately. Also, he diagnosed the "normal" individual as neurotic and the uninformed faker as being a character disorder (Rosecrans, 1983). Considering the nature of the test, at least three of these diagnoses could be correct. Clearly, it would be important to perform related research in which the structural components of the response process are considered.

Seamons et al. (1981) presented a second study which approaches experimental control. They employed a 2 x 4 counterbalanced modification of the non-equivalent control group design. They established

a S pool consisting of 12 Ss from each of the following diagnostic categories: non-schizophrenic, latent schizophrenic, residual schizophrenic, and psychotic schizophrenic. Then they administered the Rorschach to half of each group with instructions to "appear as if you are a normal, well adjusted individual." The other half of the group received instructions to "appear as if you are mentally ill, as if you are psychotic" on the first testing (p. 133). In the second testing, each group received the alternate directions. The protocols were then scored in accordance with the Exner (1974) scoring system and an analysis of variance was computed to determine if significant differences arose on any of the 48 variables scored. In the "fake good" condition, the Ss presented significantly more popular (P) responses than did those who were asked to "fake bad." In contrast, the "fake bad" condition produced significantly more blood (Bl) responses, higher ep, and more inappropriate combinations (IC). Additionally, 18 variables displayed significant differences between the diagnostic categories, validating the Rorschach's capacity to discriminate between the various nosological groups.

As mentioned earlier, the statistic chosen to evaluate the findings was inappropriate; the assumptions of random selection and random assignment to treatment groups cannot be supported. Even so, in this study this violation of assumptions was not as important as it would be in other studies. In that the analysis of variance has more power than its non-parametric analog, this procedure can be considered to be quite liberal. Further, because the experimentwise error probability is greater than .93, one would expect significance

on at least one variable which arises solely by chance. Although the differences found on the four previously cited variables must be examined closely, one can assume that there is little likelihood of a Type II error, failure to reject the null hypothesis of no differences among the groups. That is, one would not expect additional variables to change significantly under "faking good" versus "faking bad" conditions. Finally, it may be necessary to determine if the ep, Bl, IC, and P response categories actually change significantly as a result of attempts to fake one's presentation.

To date, no study has been published which employed a true experimental design to examine the effects of instructions to malingering on the structural components of the Rorschach. The work by Seamons et al. (1981) would lead one to concur with Exner's (1978) position that malingering is not possible. Even so, because he used incarcerated individuals who presumably had more rigid character structures than do normals, one still must question if normals could modify the structural components of their responses. Further, one must question if information gained from the structural summary could be employed to accurately identify Ss who were responding normally, naively faking, and faking with knowledge of the test.

II. METHODS

Subjects

The Ss employed in the current study were 30 undergraduate volunteers from the University of Alabama at Birgminham, who were taking introductory psychology and received extra credit which was added to their final grade. Ten males and 20 females were involved in the study. The males ranged in age from 18 to 28 with a mean of approximately 24.7 years. The females ranged in age from 18 to 35 with a mean age of approximately 20.2 years. All Ss had completed at least one quarter of undergraduate study and were in good academic standing. Although several Ss had taken other psychology courses, none were included who had instruction in the administration, scoring, or interpretation of the Rorschach. Further, no S was included if he/she had taken the Rorschach previous to the study either for educational or clinical purposes.

The 30 Ss were selected from a pool of 50 Ss who were recruited as volunteer Ss; after screening, 44 potential Ss were identified. Eligibility for participation was based on the criterion that no S exhibited psychotic features as measured by the Minnesota Multiphasic Inventory (MMPI). Each S was administered the group form of the MMPI which contains 566 items. No S was included who scored above 70 T on scale 8.

Once the pool of Ss was developed, each S was randomly assigned to one of three groups: control, naive faker, role informed faker.

Further, the groups were stratified on the basis of sex with an approximately equal number of males and females in each group.

Examiners

The examiners (E) employed in this study were students (second and third year in standing) in Medical Psychology at the University of Alabama in Birmingham. Each of the 10 Es (4 male and 6 female) had attended an introductory workshop on the Rorschach presented by John Exner. Further, at the time of this study, all Es were enrolled in a projective assessment course which focused on the clinical use of the Rorschach; the primary emphasis of this course involved the use of the Comprehensive System developed by Exner (1974). In addition to their experience with the Rorschach, all Ss had taken courses on intellectual assessment, neurological assessment, and objective personality assessment. Thus, all Es are accustomed to performing psychological evaluations using "standardized procedures." Finally, none of the Es were informed of the purpose of the study. They were only told that the author is examining the "effects of the Ss' beliefs on Rorschach performance."

The Es consented to participate voluntarily in this study with no monetary compensation. Even so, their participation was rewarded in that they did not have to recruit Ss to evaluate in fulfilling their course requirements.

Apparatus

Two tests and two auxiliary inkblots were employed in this project. The MMPI (group form) which is published by Psychological Corporation was employed to screen potential Ss. The Rorschach Inkblot Test published by Grune and Stratton, Inc., was used to test the effects of treatment. Finally, the two practice blots (Blots X and Y) from the Holtzman Inkblot Test were employed in training the informed faker group.

Scoring of the Rorschach protocols obtained was in accordance with the Comprehensive System (Exner, 1974). All Es were provided access to the workbook, A Rorschach Workbook for the Comprehensive System (Exner, et al., 1978) which they used to aid them in the administration of the test. Further, the structural summary sheets published by Rorschach Workshops were employed to organize the data obtained in scoring the protocols obtained.

Procedure

A multigroup extension of the post-test only control group design was utilized in this study (Campbell and Stanley, 1966). In addition to the control group, two treatment groups were employed. This design, in combination with at least interval level data and greater than five Ss per cell, allowed the use of parametric statistics to evaluate the data obtained (Myers, 1973).

The Ss were recruited and evaluated for the presence of psychotic features as previously mentioned; no S was included who

displayed an indication of psychotic features. After the S pool had been developed, each S was randomly selected from the pool and randomly assigned to one of the three groups. Next, each S was randomly assigned an examiner for the collection of Rorschach data. All Ss of each group received an individual administration of the Rorschach.

In order to protect the results of the study, the non-faking group was tested first, followed by the uninformed fakers and the role informed fakers. It was felt that if by chance the Ss who had been tested discussed their experience with Ss who were yet to be tested, no information could have been passed along which influenced the data collected since each group received successively more explicit instructions regarding how to simulate a psychotic presentation, malinger.

As suggested above, the first group (control) was presented the Rorschach under the standard conditions recommended by Exner (1974). The second group, the naive fakers (NF), was given the following instructions and administered the Rorschach in the standard fashion:

Please imagine that you have been stopped for reckless driving and that this evaluation was ordered to determine how best to deal with you. If you are shown to have severe emotional difficulties you will be ordered to attend five one-hour counseling sessions. If you do not have such problems you will be sentenced to three months in the county jail. Therefore, you want to present the worst possible picture of your personality; you will want to appear to be quite crazy.

The final group, the role informed fakers (IF), was given the following instructions on a printed card: (1) at least half of the time report something that you do not see; (2) avoid reporting human

figures or animals performing human behaviors; (3) do not report seeing figures that you believe people most often see; (4) report several silly, odd, or impossible things; and (5) whenever possible, report objects or animals which color alone would bring to mind. Next, they were given an explanation of and the rationale for each direction (see Appendix B). Finally, the Ss in this group were given 15 minutes to memorize the above instructions and tested using the standard methods; each S was assigned to an E on a random basis and then administered the Rorschach. Next, each S was interviewed by the author and asked to recall as many of the directions as possible.

Following the collection of data, the author scored each protocol after all identifying information was removed. Additionally, one card per protocol was selected at random. The Ss' responses to that card were provided to a second individual and rescored. The scores provided by both individuals were then compared to determine the interrater reliability.

III. RESULTS

Analysis

The data obtained were evaluated using the Wilks' lambda variation of Multivariate Analysis of Variance (MANOVA)^{8,9}. This procedure was chosen because it holds the experiment-wise error rate at the established alpha level. Such a consideration was quite important because the probability of a Type I error would be greatly inflated if Multiple Univariate F-tests were independently employed (Myers, 1973). Multivariate F's which differed at or beyond the .05 level were followed up by Univariate F-tests (Analysis of Variance) to identify which variables actually displayed significant treatment effects. Finally, the variables identified were then examined using the Tukey "B" procedure to perform post hoc comparisons. Clearly this combination of techniques provided a parsimonious method of hypothesis testing while minimizing the risk of a Type I error.

The second set of statistical procedures involved evaluating the degree of interrater reliability. The scores obtained by both judges on the reliability sample were compared to determine the degree of association. This comparison evaluated the degree of agreement between the two raters using the phi correlation (Segal, 1954).

⁸See Appendix D for a listing of the variables examined in each MANOVA.

⁹The rationale for assigning variables to the respective MANOVA is presented in Appendix C.

Results

The null hypotheses stated that neither the naive faker group nor the informed faker group would significantly differ from the control group on any of the 36 variables studied. In actuality two of three MANOVAs performed produced F s which were considered to be statistically significant; these F values were: $F(26, 30) = .008$ and $F(26, 30) = .019$. The third non-significant MANOVA resulted in a value of $F(20, 30) = .251$. MANOVAs I and II were followed up using individual one-way ANOVAs; the data from these ANOVAs are presented in Tables I and II.

Tukey "B" post hoc comparisons identified 11 variables on which one or both of the treatment groups differed from the control group at the .05 level or beyond (see Table III). The NF and IF groups produced scores which differed from the control on four and nine variables, respectively. Only two variables were shown to be significant across treatment conditions; both groups displayed fewer popular (P) responses and lower overall form quality ($X\%$) than did the controls. The IF group also displayed: fewer white space responses (S), a lower number of human and human detail responses ($H + Hd$), a greater number of non-form dominated color responses ($CF + C$), fewer human movement responses (M), a greater number of responses which would suggest a lack of impulse control and adequate judgment ($Bl + Fi + Ex + Sx$), fewer scores which would suggest satisfaction with self ($3r + (s)/R$), and a lower form quality in responses which use form as the only determinant ($F\%$). The NF group also

TABLE I
Analysis of Variance Summaries

Variable	df	Ss	MS	F	P<
<u>S</u>					
Between Ss	2	28.0	14.0	4.57	.020
Within Ss	27	82.9	3.07		
<u>R</u>					
Between Ss	2	428	214	2.76	.081
Within Ss	27	2088	77.3		
<u>P</u>					
Between Ss	2	42.0	21.0	10.2	.000
Within Ss	27	55.3	2.04		
<u>F+%</u>					
Between Ss	2	411937	205968	3.72	.037
Within Ss	27	1492371	55273		
<u>Σ Spec Scr</u>					
Between Ss	2	29.2	14.6	1.97	.158
Within Ss	27	200	7.41		
<u>L</u>					
Between Ss	2	52462	26213	1.25	.300
Within Ss	27	562220	20822		
<u>A%</u>					
Between Ss	2	23388	11694	.602	.555
Within Ss	27	524303	19418		
<u>M</u>					
Between Ss	2	57.8	28.9	8.46	.001
Within Ss	27	92.3	3.41		
<u>Σ Shading</u>					
Between Ss	2	101	50.8	2.63	.090
Within Ss	27	521	19.3		
<u>3r + (2)/R</u>					
Between Ss	2	188419	94209	5.61	.009
Within Ss	27	452081	16770		
<u>W</u>					
Between Ss	2	8.60	4.30	.287	.752
Within Ss	27	403	14.9		

TABLE I (continued)

Variable	df	Ss	MS	F	P<
<u>D</u>					
Between Ss	2	560	280	1.96	.160
Within Ss	27	3847	142		
<u>Dd</u>					
Between Ss	2	100	50.0	3.86	.033
Within Ss	27	349	12.9		

TABLE II
Analysis of Variance Summaries

Variable	df	S	MS	F	P<
<u>X+%</u>					
Between Ss	2	552099	276049	12.2	.000
Within Ss	27	606358	22457		
<u>CF + C</u>					
Between Ss	2	38.1	19.2	4.25	.025
Within Ss	27	121	4.51		
<u>FC</u>					
Between Ss	2	2.86	1.43	.710	.501
Within Ss	27	54.5	2.01		
<u>A + Ad</u>					
Between Ss	2	94.4	47.2	2.55	.097
Within Ss	27	499	18.5		
<u>H + Hd</u>					
Between Ss	2	51.2	25.6	5.50	.010
Within Ss	27	125	4.65		
<u>Zf</u>					
Between Ss	2	62.4	31.2	1.42	.258
Within Ss	27	591	21.9		
<u>Blends/ R</u>					
Between Ss	2	5488	2744	.118	.889
Within Ss	27	626679	23210		
<u>ep</u>					
Between Ss	2	128.6	64.3	.155	.230
Within Ss	27	1116	41.3		
<u>FM + m</u>					
Between Ss	2	14.06	7.03	.559	.578
Within Ss	27	339	12.5		
<u>Bt + Ge + Ls + Na</u>					
Between Ss	2	14.06	7.03	3.60	.041
Within Ss	27	96.5	3.57		
<u>Bl + Fi + Ex + Sx</u>					
Between Ss	2	22.4	11.2	3.44	.047
Within Ss	27	87.9	3.25		

TABLE II (continued)

Variable	df	S	MS	F	P<
<u>An + Xy</u>					
Between Ss	2	5.60	2.80	4.75	.017
Within Ss	27	15.9	.588		
<u>a - p</u>					
Between Ss	2	4.06	2.03	.266	.768
Within Ss	27	205	7.62		

TABLE III^a

Variable	Order of Means	$\bar{X}$	$\bar{X}$	$\bar{X}$
<u>X+</u> %	IF, NF, C	<u>.377</u>	<u>.525</u>	.709
<u>F+</u> %	IF, NF, C	<u>.367</u>	<u>.573</u>	.643
<u>M</u>	IF, NF, C	<u>.50</u>	<u>2.1</u>	3.9
<u>CF</u> + <u>C</u>	NF, C, IF	<u>1.9</u>	<u>1.9</u>	4.3
<u>P</u>	IF, NF, C	<u>1.0</u>	<u>2.4</u>	3.9
<u>S</u>	IF, C, NF	1.0	<u>3.0</u>	3.1
<u>H</u> + <u>Hd</u>	IF, NF, C	<u>.80</u>	<u>2.3</u>	4.0
<u>An</u> + <u>Xy</u>	IF, C, NF	<u>.10</u>	<u>.30</u>	1.1
<u>Dd</u>	IF, C, NF	<u>1.5</u>	<u>3.0</u>	5.9
<u>Bt</u> + <u>Ge</u> + <u>Ls</u> + <u>Na</u>	C, IF, NF	<u>1.5</u>	<u>1.8</u>	3.6
<u>Bl</u> + <u>Fi</u> + <u>Ex</u> + <u>Sx</u>	C, IF, NF	<u>.90</u>	<u>1.3</u>	2.9
<u>3r</u> + <u>(2)/R</u>	IF, NF, C	<u>.175</u>	<u>.262</u>	.369

^aMeans which do not differ significantly at the .05 level are underlined.

displayed a greater number of responses involving human anatomy and x-rays (An + Xy), and more responses involving botanical, geographic, or natural settings (Bt + Ge + Ls + Na).

It was unexpected that the IF and NF groups would differ as greatly as they did. Although not predicted it would not have been surprising to have found both groups to have used significantly more color in the formation of their responses than did the control group. The IF group did produce more non-form dominated color responses (CF + C) than did both the control and NF groups; the latter groups had identical means for this variable. Similarly, the NF group displayed a significantly greater number of Dd, S, and An + Xy responses. The means for these and all previous variables are presented in Table III.

Inter-rater Reliability

The author and a second rater scored the responses to thirty randomly selected cards, one card from each protocol; a total of 53 responses were utilized to evaluate reliability. The phi correlations of agreement ranged between 1.00 and .800 with a median score of .927. The level of agreement in scoring may be inflated or deflated in some cases because of the extremely low frequencies of occurrence of some variables. The following variables occurred two times or less in the sample: (A) + (Ad), Cg, FD, and Cl. It was important to note that these frequencies appeared to parallel the occurrence of the variables across conditions of the experiment. A full statement of the correlations obtained was given in Table IV.

TABLE IV

Variable	Correlation	Variable	Correlation	Variable	Correlation	Variable	Correlation
<u>F+</u>	.932	<u>Dd</u>	.952	<u>Blends/R</u>	.885	<u>S</u>	.827
<u>Spec Scr</u>	.952	<u>P</u>	.942	<u>ep</u>	.889	<u>Afr</u>	1.00
<u>L</u>	.925	<u>R</u>	1.00	<u>FM + m</u>	.830	<u>Ma - Mp</u>	1.00
<u>A%</u>	1.00	<u>X+</u>	.942	<u>Bt + Ge + Ls + Na</u>	.925	<u>DQ%</u>	.873
<u>M</u>	1.00	<u>CF + C</u>	.823	<u>B1 + Fi + Ex + Sx</u>	.916	<u>(H) + (Hd)</u>	.808
<u>Shading</u>	.857	<u>FC</u>	.808	<u>An + Xy</u>	1.00	<u>(A) + (Ad)</u>	1.00
<u>3r + (2)/R</u>	.827	<u>A + Ad</u>	1.00	<u>a - p</u>	.852	<u>Cg</u>	1.00
<u>W</u>	.887	<u>H + Hd</u>	1.00	<u>A + H</u>	.926	<u>FD</u>	1.00
<u>D</u>	.891	<u>ZF</u>	.929	<u>HD + Ad</u>	.800	<u>C1</u>	1.00

S's Experiences and Perceptions

Following the administration of the Rorschach each S was debriefed. The NF group was asked to report their strategies toward faking and their feelings about their experience. They reported that they chose such strategies as: behaving as if they were "crazy" prior to and during the testing, reporting "fantastic" or "weird" percepts, presenting themselves as irascible and oppositional, reporting percepts they actually saw to areas of the blot other than those areas which elicited the percept, and reporting gory contents. All Ss reported that the experience was enjoyable and most (6) felt that they had actually misled the examiner. (This perception may have been partially correct because several Es questioned if this group was selected because of being seriously disturbed.)

In addition to the debriefing reported above Ss in the IF group were asked to remember and report the directions they received regarding how to malingering. Eight of the Ss remembered all five instructions while the remaining two Ss remembered three and four instructions. This resulted in a mean of 4.7 instructions remembered at the completion of testing.

The focusing on the instructions appears to have hindered the expression of individual creativity. When asked to report the strategies used to portray themselves as "crazy" no S reported a personal improvisation. Also, the IF Ss did not assume behavioral presentations consistent with their test performance. The

inconsistency between these factors was so great that three Es spontaneously reported this observation.

IV. DISCUSSION

The results presented cast doubt on Exner's (1978) assertion that an individual cannot purposefully malingering on the Rorschach if the protocol is collected in the manner he prescribes. Even so, these data do not necessarily suggest that the Ss were able to simulate a consistent overall psychotic presentation. Rather there were obvious discrepancies in their behavior and test performance. These discrepancies can best be understood through an examination of the Ss' perception of the test, the cognitive and emotional sets which arose during the experiment, and the common experience shared by the Ss. It is the position of this paper that the current study provided substantial evidence that the structural components of the Rorschach are not immune to faking; it also provides information about the non-psychotic individual's perception of psychopathology and malingering.

In addition to the above considerations the current study is important because of its relationship to earlier studies of the Rorschach. Many of the findings reported herein were in agreement with Rorschach's (1942) early expectations. Also support is provided for the work of previous authors who caution against the non-critical use of the Rorschach (Carp and Shavzin, 1950; Gibby, 1951; Hutt et al., 1950; Phares et al., 1960; and Schachtel, 1945). Finally the data presented suggest that the Rorschach (using Exner's system) may be no better and no worse than other instruments at withstanding attempts, especially informed attempts, to misrepresent oneself.

Self and Behavioral Presentations

Prior to focusing on the historical and theoretical implications of the results, it was interesting to view them pragmatically. As compared to the control group the NF group was able to produce significant differences on four dependent variables with no instructions regarding how to do so; instructions given only established a hypothetical motivation for malingering. Two of the differences could be explained as reflecting the immediate emotional stress which confronted the S. It could be hypothesized that the greater tendency to produce passive/immature content (Bt + Ge + Ls + Na) resulted from assuming a dependent stance in which the malingerer is attempting to attune himself/herself to cues emitted by the examiner regarding how to respond. Likewise, the greater number of An + Xy responses could be attributed to an immediate obsessive preoccupation with self and the presentation one gives. Given these differences and the hypothetical explanations put forth it must be noted that only the latter set of results (An + Xy) imply psychopathology. According to Phillips and Smith (1953) the botany (Bt), geography (Ge), landscale (Ls), and nature (Na) responses are either produced equally by all populations or are presented more frequently by normals. Thus, one has to be alert that the presence of significant differences between the NF group and the control group does not necessarily imply successful malingering.

A second set of differences clearly demonstrate that the NF group was able to successfully malingering. The NF group was able to

simulate poor perceptual accuracy (low X_+) and a limited ability to see the world in a conventional fashion (low P). It is significant that the NF individuals were able to display the two major signs of poor reality testing on an intuitive basis.

The NF differed significantly from the IF group primarily on measures of anxiety and interpersonal sensitivity. They (NF group) presented themselves as more oppositional (gave a higher number of S responses), as being more sensitive to unusual details (used the Dd locations more frequently) and as being more self-absorbed or self-preoccupied (gave more An + Xy). From their performance it could be inferred that the NF group felt under greater stress and were more interpersonally guarded. Given this guarded stance it is understandable that the NF group did not display the same level of emotional reactivity and lack of impulse control (CF + C) as did the IF group.

The IF group produced significantly more signs of serious psychopathology than did the control and NF groups. Like the NF group they were able to simulate poor perceptual accuracy and a limited ability to see the world in the conventional manner. They presented themselves as being less ideational, as having less empathy, and as having less access to ideation for creative problem solving (lower M). Concurrently, they simulated a lowered interest in interpersonal relationships (fewer H + Hd) and a less oppositional interpersonal stance (S): in this instance the lower level of oppositionalism could be interpreted as a result of the viewing people as unimportant. Additionally, the IF group displayed significantly more signs of emotional reactivity (CF + C) and of emotional discontrol

(CF + C: B1 + Fi + Ex + Sx). Lastly, the IF group presented themselves as being appreciably less content with themselves than did either the NF or Control group.

Here it must be noted that although both groups malingered, the inferred behavioral presentations were quite dissimilar. The NF group displayed a more paranoid oppositional picture, whereas the IF group simulated a more schizoid withdrawn stance. Given that both groups could be described as overly self-focused the conditions influencing such egoism are almost diametrically opposed. The NF group presented themselves as being touchy, interested in protecting themselves from external threat, impingement, criticism, etc. In contrast, the picture presented by the IF group is of an individual whose excess focus on self is accompanied by an abandonment of or retreat from external contact. Also it is of some consequence that the NF group does not show the extreme emotional reactivity or excessive disruption in judgment caused by affective stimuli which is suggested by the IF group's test performance. If a naive examiner were attempting to make predictions from this data he/she would suggest that the members of the IF group would ignore and avoid interpersonal and emotional stimulation until their threshold of stimulation had been met. Thereafter they would be expected to react catastrophically. Such behavior would not be expected of the NF group.

Cognitive/Emotional Set

Many, but not all, of the differences between these groups can be attributed to the differences in instructions. It appears that an emotional/cognitive set accompanied the role assumption by these groups. The IF group was not instructed to simulate lowered self-worth or indicants of affectively disruptable judgment. Likewise, the NF group appeared to assume a (possibly unconscious) set of opposition and competition. These results lead one to believe that different instructions could evoke other, equally disturbed, personality presentations. Such a position is consistent with the work of several earlier authors (e.g., Albert et al., 1980; Henry and Rotter, 1956; and Luchins, 1947).

Having suggested that many, if not all, experimental Ss adopted an emotional/cognitive set, it must be noted that behavioral expression of these sets could also be seen in extra-test behavior. The IF group was spontaneously described by the Es as being calm and cooperative but distant by some Es. The NF group drew even greater spontaneous comment. This arose presumably because several members of the NF group behaved in unusual, if not peculiar, fashions. One S refused to enter the elevator and insisted that she and the E take the stairs when going to the testing room. Another S refused to take the Rorschach cards when the E attempted to hand them to him. Although the Ss in the NF group chose their own ideocyncratic method of appearing "crazy," all displayed some form of behavioral expression.

Interestingly, the NF group displayed more concordance between their behavior and test performance. As noted above they were oppositional, erratic, and at times, whimsical in their behavior. (Incidentally, they appeared to enjoy the experiment more greatly than did the other two groups.) Several hypotheses could explain why the IF group could have focused more attention on remembering and fulfilling task requirements than the other group. Thus, greater focus could have produced behavioral constriction because less energy, attention, etc., was available for other behaviors. Second, the NF group could have seen the instructions as an invitation to regress and exhibit potentials common to most individuals; their test performance and extra-test behavior could be considered regression in service of the ego. Third, the NF group could have been under greater stress-producing anxiety which was expressed in a variety of fashions. Given the earlier discussion of test performance, there is a strong possibility that all of the above factors were operating. Thus, some of the differences in the structural components could also be afforded additional interpretations.

Although the use of white space is generally considered to represent oppositionalism, it is important to focus on the underlying intentionality expressed; is the intent one of creation or negation. Creativity can be considered to be a bringing of something out of one's self and expressing it in a meaningful manner to the other. Thus, it would not be surprising to see individuals who were involved in a creative act to present in a manner which suggested significantly greater self-preoccupation than would be seen in

individuals who were having a less creative experience. Further, since creation is an act of surpassing the usual limits it might have also produced greater oppositionalism in the NF group.¹⁰ Such a condition could account for the greater use of white space (S) responses by the NF group as compared to the other two groups.

Like all psychological phenomena, multiple causation must be considered. Thus, malingering is not a simple act of deception but involves the S's self-image, ego-functions, intellect, understanding of his/her experience and interpersonal adroitness (Schachtel, 1945). As has been suggested by others, the more successful one's ego development, the greater the probability of successful malingering (Milton, 1949; Rorschach, 1942).

Phenomenological Presentation

From the foregoing discussion it became clear that the two treatment groups experienced the experiment quite differently. Consistent with earlier expectations, the NF group appeared to define the E as the problem. Consequently, their task became a competitive one of deceiving the Es. The viewing of the task in this manner required that the Ss maintain a close, but disaffiliative, relationship with the E. (An affiliative or more neutral interaction would establish the possibility of a halo effect and mitigate the Ss' attempts at malingering.) This approach is interesting because it is

¹⁰It is recognized that creativity can also be a cooperative experience.

not consistent with the actual intentionality or behavior of the psychotic individual. In the usual case the psychotic seeks to avoid contacts with others which serve as reality constraints. In this case the Ss intensified the relationship with the E and attempted to provide the other (E) a distorted picture of reality.¹¹ A tactic used in this effort was to irritate the E and establish a negative set in the E's perception of the S. Such an approach could be successful in disguising the reciprocal nature of the interaction between the S and E. It could be helpful in deceiving the inexperienced E but would be of less assistance in misleading the more experienced E.

A second inconsistency in the presentation of the NF Ss was that they assumed neither a dependent nor passive stance in their interactions with E. Whereas the successful malingerer may be more patient and await cues from the E prior to assuming a role, the NF Ss appeared to immediately take an oppositional stance. One expected consequence of such behavior is that the E would not be disposed to take a caretaking stance with regard to the S. Rather such behavior may elude more power oriented interactions with the E. It may be that individuals providing such a presentation would be judged to be antisocial, narcissistic, and paranoid more frequently than psychotic.

¹¹It is interesting to note that if reality vs. nonreality is viewed as a figure ground issue, then making either more distinct would necessarily sharpen the contrast between the two. Consequently, it could be hypothesized that while attempting to present themselves as being nonreality bound (psychotic) the malingerers were concurrently heightening their own awareness of the reality aspects of their experience.

In contrast the IF group was more distant but they too were involved in complementary interactions with the E. It appears that they depended upon their use of instructions to malingering. In fact, they employed the instructions so well that the picture they presented was too extreme for non-institutionalized patients. Consequently, several of the Es were confused by the mixed picture presented by test data and the S's behavior. Such confusion would be a clear sign to the experienced E that caution was necessary in interpreting test results.

Similar to the NF group the IF group did not assume a dependent or passive stance. Further, this behavior had a goal directed quality which is not consistent with psychosis.

Neither faking group displayed the inconsistencies in functioning which commonly arise in the protocols of psychotic individuals. Rather, they presented themselves as having attained a consistent pattern of adjustment which was employed across situations. Although their behavior and test performance was outside of the norm there was an organization which was in the main inconsistent with psychosis. As suggested by some authors (Laing, 1967; and Becker, 1971), these normal individuals may not have been able to free themselves of the cognitive limitations which arise through the socialization process. Therefore, although they were given instructions regarding how to present themselves to appear "crazy" they could not produce the spontaneous ideopathic quirks and fluctuations seen in psychotics.

Historical Perspective

Rorschach (1942) believed that one's performance on his test could be influenced by specific instructions, given that these instructions established clear and discrete expectations. For example, one could produce more M responses if instructed to do so, whereas instructions to produce as many original responses as possible had no discernable effects on the protocol obtained. To some extent this study validated his beliefs. Four of the five instructions given to the IF group were straightforward and required little critical or creative thinking. The remaining instruction (#4) was quite complicated and required learning on the S's part.¹² As could have been predicted (from Rorschach's work) the more brief instructions were accompanied by significant differences in the IF group's protocols as compared to the control group; the longer instructions (#4) did not produce significant results. Likewise, Rorschach predicted that instructions to change one's performance with respect to one variable would result in changes in other variables as well. This phenomenon was demonstrated when the IF group displayed concurrent changes in 3r + (2)/R, S, and Fi + Ex + Bl + Xs when directions focused on P, H + Hd, M, Special Scores and Form Quality (X+% and F+%). Clearly, this study supports Rorschach's beliefs on these issues.

A second set of results was consistent with the beliefs expressed by Rorschach and other authors (Gibby, 1951; Hutt et al.,

¹²For specific instructions, see Appendix B.

1950; Milton 1947). It was shown that Ss could suppress the expression of "constitutional tendencies" if so instructed.^{13,14} Members of the IF group were able to reduce the number of M, F+, and H + Hd responses after receiving simple instructions. (Similar results were seen with respect to P responses. Yet, because the NF group also reduced the number of Ps produced the decrease cannot be unequivocally attributed to the instructions received.)

Finally, the results obtained were not in accord with Rorschach's expectations regarding the EB. He believed that instructions to increase color and/or movement responses would result in only minor changes in the EB. Further the EB was considered to represent "constitutional" factors of the individual and only to be minimally susceptible to disruption by mood, external situation, and instructions (Rorschach, 1941). The NF group performed as he would have predicted and did not vary significantly from the control group in terms of movement (human movement) or use of color. In contrast, when provided concurrent instructions to increase CF + C and decrease M the IF group was able to show marked directional change in the EB. This suggests that one can respond in a manner which belies the actual

¹³ Although research efforts have primarily focused on the stimulating of response categories which detract from the expression of the dependent variable in question (e.g., Ds and Dds could be encouraged to suppress the production of Ws), Rorschach did examine the efforts of direct instructions to avoid producing specific categories of responses (e.g., A).

¹⁴ Forensic literature suggests that disturbed individuals can produce more normal protocols by giving few responses using few determinants other than form (Exner, 1978).

cognitive/emotional style; a pattern of emotional discontrol and hyper-emotionality can be mimicked. Thus, it appears that the EB is not as impervious to conscious manipulation as previously believed.

The question of susceptibility of the Rorschach to purposeful simulation of "mental illness" has been a theoretical issue that, at times, appears to be more a question of values than one of scientific investigation. Frequently, authors have strongly stated that the test cannot be meaningfully faked then proceeded to warn the reader regarding how to recognize malingering (Exner, 1978; Seamons, 1978). Similarly, some authors in their research on faking have discounted the failure of their data to obtain statistically significant results and provided arguments that the Rorschach is actually susceptible to faking (Carp and Schavzin, 1950). Additionally, some authors appear to treat their work as if it is a definitive statement even if the results are not consistent with earlier results (Seamons, 1981).

The current study suggested that the type of instructions given greatly influences one's ability to malingering. The instructions employed herein produced results that were both consistent with and divergent from various earlier findings. For example, this study did find a decrease in P responses as the results of instructions to fake bad. Similar results have been found by Easton and Feigenbaum (1967), Henry and Rotter (1956), and Seamons (1981). In contrast, no effect was shown respective of R. This contradicts some earlier studies (Hutt et al., 1950; Easton and Feigenbaum, 1967; and Henry and Rotter, 1956) while at the same time supports the work of Seamons (1981).

Further, whereas Seamons found only one "structural variable" to be subject to manipulation this study found five such variables to show significant treatment effects. The one variable which he found to be significantly altered did not show a greater than chance treatment effect in the current study. Of consequence is the fact that variables which are commonly considered to be indicative of reality testing (X+%, F+%, and P) were rather easily manipulated. This finding is contradictory to previous studies (Seamons, 1981; Exner, 1978). Also, it strengthens the hypothesis that faking is possible.

Albert et al. (1980) demonstrated rather convincingly that expert raters could not blindly evaluate Rorschach protocols and discriminate malingerers from actual psychotics. In fact, his experts (fellows of the Society for Personality Assessment) actually rated NFs as being psychotic with an approximately equal frequency as they did psychotic patients. One drawback to this study was that there was no (reported) consistent method used to evaluate the psychographic data. Consequently, a possibility existed that use of the Comprehensive Scoring System would eliminate the threat of malingering by being immune to such attempts; ideally changes would not have occurred on the structural variables.

Cumulative results on studies of malingering suggest that some Ss can misrepresent both the psychographic and thematic aspects of the Rorschach Inkblot Test. As noted earlier, there is some evidence that the ability to successfully malingering is related to intellectual level, cognitive flexibility, and personality functioning of the individual involved (Carp and Shavzin, 1950; Gibby, 1951; Hutt et al.,

Further, even though malingering is possible without specific instructions, giving the Ss information regarding what is expected of them makes their performance even more believable.

Diagnostic Considerations

Although the current study failed to identify reliable indicants of malingering, some important considerations are notable. Foremost among these considerations is the "patient's" conception of the evaluation process; if the "patient" can gain an obvious benefit from being labeled "emotionally disturbed" malingering is more probable, especially if monetary or legal issues are involved. The patient's psycho-social history and behavior are also important. The psychologist must be alert to discrepancies between the picture implied by the psychological test results and these two factors. Gross inconsistencies can be signals that caution is necessary in making a diagnosis. Further, the psychologist can at times identify malingering if a patient is presenting in a bizarre manner yet maintains a parallel or complementary relationship. If the patient remains alert to his/her impact on the psychologist and modifies his/her presentation as a consequence of the examiner's behavior there is a possible contradiction of psychosis. This is the case even if the behavioral presentation is irritating or coercive. The psychotic individual would more usually act "in spite of" rather than "in accordance with" the other.

Studied malingering may be detected if the "patient" displays an excessively disturbed picture on the testing. For example,

extraordinarily low form quality, perhaps below 40%, would not be expected of the non-institutionalized patient. It is not likely that individuals who cooperate enough to complete the Rorschach are autistic enough to disregard the stimulus qualities of the cards to such an extent. Likewise, although psychotic individuals produce contents which imply emotional discontrol it is rare that individuals who live autonomously produce high numbers of such responses. Therefore, if an individual with assumed motivation for malingering produced a high number of Sx, Ex, Fi, and Bl responses one might consider purposeful misrepresentation. The same is true of individuals who produce many S and C responses yet lead self-directed lives. In sum, the greater the history and future aspirations of the individual deviates from the picture presented by test data, the greater the possibility is of malingering.

Limitations and Future Directions

This study can be criticized on the basis of the criteria for inclusion in the Subject pool. It is believed that one criterion of borderline personality organization is ability to function well on highly structured tests and to become disorganized on more ambiguous tasks (Sugerman, 1980). Therefore, it is possible that several Ss were included in the study whose Rorschach performance would have presented as impaired without any intervention. Further, this could in fact be the case as the control group displayed overall form

quality means of 71% (X+%) and 64% (F+%).¹⁵ Given random assignment into groups from the Subject pool, it is believed that such error variance would have been randomly distributed across the three groups. Even so, it would have been preferable to have a pretest measure that correlated more highly with the Rorschach. This condition could have been met by employing a pretest/post-test Control group design and evaluating the change scores. Such design would have allowed the E to eliminate any individual who scored unacceptably low or high on any of the major variables prior to random assignment to groups. Also, it would have reduced the opportunity for high levels of error variance.

A second quite reasonable criticism is that the population employed in this study may not be similar to the subpopulations who malingers to avoid judicial actions or to obtain disability benefits. To some degree the experimental population was self-selected for youth, ambition, intelligence, and psychological mindedness. The fact that they were undergraduate students suggests that they were goal oriented, of at least average intelligence, and for the most part young. Additionally, because they were voluntary participants recruited from psychology courses there is reason to believe that they were attuned to psychological issues if not psychologically minded. These same assumptions cannot be made about all individuals who malingers to manipulate the legal or social welfare systems.

¹⁵On three other variables the control group responded differently than did Exner's original sample of nonpatients. The Ss of this study displayed a higher number of Dd responses per protocol, gave more white space responses (S), and gave a lower number of P responses.

Another prime difference between the S pool and "real life" malingerers is that of motivation. The Ss were under no real stress to perform and no consequences would befall them because of their presentations. Such neutral conditions may have afforded them more cognitive flexibility and a greater capacity to allow creative regression. Thus, the results obtained may be more pronounced than would be expected from an individual who had a more personal investment.

Finally, the Ss involved in this study would not be expected to be as sociopathic as the other populations. It can also be assumed that the "true" malingerer would have a history of coercive relationships with others. Consequently, they may present as being "street-wise" and manipulative. Also they may be more sensitive to subtle reactions which others may have to their manipulations. This would allow them to manipulate less noticeably; the "good" manipulator does not alert the other to the fact that he/she is being manipulated. Albeit they may not present such dramatic results when attempting to simulate psychosis on the Rorschach, they may produce more believable results.

Although the current study was initiated to determine if "faking" the structural variables was at all possible, future researchers must be sensitive to the choice of experimental population as a salient variable. In attempts to expand upon or validate the current findings it will be beneficial to utilize various S populations.

Although the current study displayed good inter-rater reliability in the experimental sense, clinical reliability was not examined. The use of randomly selected cards, as opposed to entire protocols, for reliability checks sacrificed the more unitary or wholisitic picture of the individual. There was no method of determining if both raters would have achieved the same global picture of the Ss involved. To some extent the "art" of projective testing was eliminated in favor of immediacy.

This study in conjunction with the work of Albert et al. (1980) strongly suggests that naive and role informed Ss are able to misrepresent themselves to naive examiners on the Rorschach test. Consequently, it may be profitable to specify which structural variables and contents are subject to volitional suppression or expression. Further, because it will be important to understand the maximum degree to which one can simulate psychopathology on the Rorschach, future researchers may wish to focus primarily on role informed faking. In later studies it also may be beneficial to employ brief straightforward directions and concrete examples.

Another area which may merit consideration would be comparing the protocols of individuals who were simulating psychosis with the protocols produced by psychotic individuals. There is a real possibility that the protocols obtained from these groups differ significantly on some variable which has not yet been identified. If the differentiation between malingering and psychosis is not possible on the whole, this type of research may identify the typical (or at least typical) presentation of a malingerer. For example, it

is expected that the malingerer may commonly present as a paranoid schizophrenic but only rarely as a hebaphrenic. This might allow one to rule out some cases of misrepresentation and/or psychosis.

Lastly, future researchers will have to be alert to avoiding the value-laden aspects of this research. It may be necessary to acknowledge that in some cases the Rorschach is susceptible to malingering. Therefore, it will be important to perform similar studies with a variety of instructions and multiple S populations. A systematic evaluation of malingering may serve to identify who can simulate psychosis under what conditions and to what degree.

Final Comments

One must question the ramifications of the IF groups' ability to present such a consistently disturbed picture with so little training. If these results are reliable, in the future the clinician must be quite cautious in using the Rorschach for Forensic and/or disability evaluations. Also, one must question if the Rorschach remains a practically useful or economically feasible choice given that administration and scoring may take in excess of one hour. Clearly, scoring protocols under such circumstances is of limited value. The shortcomings demonstrated by this study suggest that Schaffer's (1947) use of the Rorschach as a structured interview may have been more reasonable than the "Scientific" approach taken by many contemporary clinicians who are attempting to standardize the Rorschach test. Perhaps the Ss behavior while taking the test and

his overall presentation may be more important than any other specific result.

This study supported the above expectation. In their attempts to malingering the experimental Ss remained in clearly complementary relationships with the Es. They did not attempt to negate the existence of the other (E). Rather than attempting to avoid constraints placed upon one by reciprocal communication, the Ss worked within these constraints in their attempts to manipulate the Es; they attempted to convince the Es that the disturbed pictures they were presenting were genuine. It is interesting to note that in their idiosyncratic portrayal of "craziness" the Ss must have been more aware of their normal functioning. (By making the "craziness" more figural the ground of normality must have also been more clear.) The experienced examiner would likely be alert to the above inconsistencies and thus be less easily manipulated. Thus, many of the behavioral aspects which made the experimental Ss appear to be "crazy" would negate such a diagnosis in clinical practice.

A discussion of utility of any individual test could not be concluded without acknowledging that most clinicians do not base their evaluations on any one source of data. Rather, it is customary to examine test results in the context of the patient's history, motivation, current circumstances, and expectations for the future. Further, seldom is any one test given independently or interpreted blindly. In a battery of other tests the Rorschach may prove quite useful. For example, it may be an extremely difficult task to

malinger in a consistent manner on the Rorschach, Thematic Apperception Test, and MMPI.

In sum, this examination has validated a point frequently made by others; the Rorschach is not inviolate with respect to individual motivation and conscious manipulation.

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APPENDIXES

APPENDIX A

Many authors have addressed the issue of diagnosing psychotic features using the Rorschach (Beck and Beck, 1978; Exner and Weiner, 1982, Klopfer et al., 1954; Philips and Smith, 1953; Rapaport et al., 1946; Schafer, 1954; Weiner, 1966). The specific criteria used in making a psychotic diagnosis are directly related to the Rorschach System employed. For example, Beck and Beck (1978) focus on the psychographic components of the S's protocol (e.g., F+%), whereas Klopfer et al. (1954) focus on such issues as symbolic expression of primary process (p. 544), "erratic variations inform level, grotesque use of color without subject discomfort, (and) bizarre originals" (p. 563). Because the current study was specifically interested in the detection of malingering using the Comprehensive System developed by Exner (1974), his criteria for identifying psychotic (schizophrenic) functioning were employed in developing instructions which the role informed Ss employed in their attempts to malingering.

Exner and Weiner (1982) identify four basic areas in which schizophrenic individuals display aberrant Rorschach performances. In the Comprehensive System distorted perceptual accuracy is the sine qua non of impaired reality testing. The ability to recognize popular responses (P) and to report perceptions which conform to the contour of the blot both require adequate perceptual accuracy. Thus, if one is to malingering, he/she must avoid reporting P responses and must report perceptions that are not consistent with the shape of the blot. Interpersonal relationships are also quite problematic for

schizophrenics. Although behavioral observations and past history are the best measures of interpersonal competence, clear Rorschach indicants of such skills do exist. "M" responses reflect in part an interest in human interaction (Exner and Weiner, 1982, p. 222), and the capacity to be emphatic with others. Likewise, the production of human content (H) also indicates an interest in people. Should one want to present himself/herself as pathologically withdrawn, he/she would need to avoid reporting percepts that contained human content. In addition to perceptual accuracy and interpersonal inadequacy, a lack of emotional control is seen in Rorschachs produced by schizophrenic individuals. The manner in which one response to the chromatic aspects of the Rorschach is considered to be related to affective control; the greater the use of form in determining the percept, the more one is expected to have the capacity to control his/her affective responsivity. One would report primarily CF and C responses as opposed to FC responses if he/she were attempting to simulate schizophrenia. Finally, disturbed thinking arises in Rorschach protocols of schizophrenics. Accordingly, schizophrenics often produce unusual verbalizations, abstract preoccupations (AP) and a dissociated response style (DRS). Such responses are most often reflected in the Special Scoring categories of the structural summary; at times, one must look to the actual response to recognize if AP and DRS are present. To simulate disturbed thinking, the S must present peculiar word usage, odd logic, or unusual combinations of perceptions.

From the preceding discussion the following instructions have been developed to aid the informed faker groups:

1. At least half of the time report something that you do not see.
2. Avoid reporting human figures or animals performing human behaviors.
3. Do not report those things (percepts) that you believe people most often see.
4. Report several silly, odd, or impossible things.
5. Whenever possible, report objects or animals which color alone would bring to mind.

APPENDIX B

The purpose of this study is to determine if informed Ss can simulate, fake, mental illness on the Rorschach Ink Blot Test. In the next ten minutes, I hope to teach you enough about the Rorschach that you will be able to produce test responses which simulate a psychotic picture. Remember that although you know the purpose of this study, the E who will be testing you does not. Please do not tell him/her what you are trying to do. Further, after the examination, do not tell him/her because I want to ask them some questions about their experiences.

Each of you will be given an index card with five simple instructions on them which I will explain. The first instruction is, "At least half of the time report something that you do not see." This instruction was chosen because psychotic people do not see the world as you and I do. Often times, "crazy" people misinterpret what they see. Consequently, if you report seeing objects or animals that you do not actually see, your performance should change accordingly. When you report such things, be sure to specify the part of the card in which you are pretending to see the figure.

Second, "Avoid reporting human figures or animals performing human behaviors." Just as psychotic individuals have trouble in seeing the world in the usual fashion, they have much difficulty in dealing with people. Therefore, they do not report seeing people on this test. If you avoid reporting people, you can easily mislead the examiner on this issue.

Third, "Do not report those percepts that you believe people most often see." We already know that psychotic individuals see the world quite differently than do the rest of us. You can further camouflage your performance simply by avoiding the obvious. Thus, you may want to look at each card and decide what you believe most people see and avoid reporting that figure.

Fourth, I would like you to "Report several silly, odd, or impossible things." For example, you could report fantastic or unreal animals such as a rat with a chicken's head. You could report unusual relationships between two objects (e.g., there is a tree that is growing turnips, or that is a fish climbing a tree, etc.).

Finally, you misuse words or phrases in a description (e.g., there is a bug with antlers). Obviously, the word "antennas" would be more appropriate. You need not follow my exact examples, but try to suggest things that are unreal or have unusual relationships. Also, when you think of it, occasionally misuse a word or phrase.

Fifth, and lastly, "Whenever possible, report objects or animals which color alone would bring to your mind." Psychotic people are impulsive in their thinking and behavior. They often act on their first impressions with little censoring. Because color is one of the stronger stimuli in the Rorschach cards, it often elicits responses from psychotics. For example, a psychotic individual may say something like "that looks like a grape because it is green," or "that is blood because it is red."

Here, I have two inkblots from another test which is similar to the one you will be taking. Looking at the first card we could

guess that people may often report seeing a bat, butterfly, or moth. Thus, you would not want to report seeing these percepts. Rather, you might suggest that half of the card looks like a tree growing out of the ocean. You could also report that the whole thing looks like a frog floating on a cloud. Additionally, you could report that it is a squashed turtle because of the shape of its snout.

Now, if you will give me the first card and take this one, we will do one more for practice. Often times, Ss report the outline of a person (woman) to this card. As you remember, you are going to avoid any mention of people or animals performing human behavior. Rather, you might focus on the color and say that you see splattered blood or the sun rising because it is red. You could also report such a thing as an oil well on fire. This answer could be "justified" by stating that the black looks like an oil rig and the red looks like fire.

After you have given a response to the ten Rorschach cards, the examiner will want you to tell him/her what about the card made you think of the thing you reported. Also, he/she will want you to point out where you saw the response you reported. Just like in the first part of the test, nothing you can say will be "wrong." By that I mean that the E will not be able to recognize that you are purposefully misleading him/her. The E may be confused by what you say and question you to try to understand what you are saying. You do not have to fully explain what you "saw": you only have to describe it. When you run out of ways to justify any given response, you can always fall back on the statement, "It just looked that way to me."

After you repeat this statement a couple of times, the E will not question further and move on.

Although this test may be quite enjoyable and amusing to you, please remember that your participation can serve to teach these Es much that they can later use when working with their patients.

Please understand that what you are doing is important and that the results of this study can be helpful in understanding the usefulness of the Rorschach Ink Blot Test. Now, take five minutes to memorize the directions which you have been given because I want you to leave the index cards with me.

APPENDIX C

The variables examined in the study were primarily derived from the "Ratios," Percentages," and "Derivations" suggested by Exner (1974). In several of the ratios there was a possibility of a zero occurring in the numerator or denominator. In the first case the magnitude of difference could have been artificially lowered because zero divided by X ($0/X$) is equivalent to zero divided by $X + A$ ($0/X+A$). The second possibility could have also resulted in unusable data because division by zero is not meaningful. Therefore, in many cases it was more useful to compare both the numerators and demoninators of each ratio separately. In all cases the data was expressed in at least an interval scale of measurement.

In addition to the changes mentioned above, several new variables were created. A Developmental Quality Percentage was created by simply dividing the number of good developmental quality scores by the total number of scale scores. This expression of Developmental Quality is possibly more meaningful than using the individual raw scores for comparison because it controls for the number of responses. Also, it is more economical because it expresses the data in one step rather than four. As suggested by Exner (1974) content variables with similar dynamic interpretations were combined. In other words, an attempt was made to examine various "constellations" of contents; all were derived directly from Exner's (1974) discussion of these contents. The "constellations" examined were: An + Xy, B1 + FI + Ex + Sx, and Bt + Ge + LS Na.

The actual variables employed in this study were: F+%, sum Special Scores, L, A%, M, sum shading (FC' + C'F + C' + FY + YF + Y + FT + TF + T + FV + V), CF + C, FC, A + Ad, H + Hd, ZF, Blends/R, R, ep, FM + m, Bt + Ge + Ls + Na, Bl + Fi + Ex + Sx, An + Xy, a - p, X+%, A + H, Hd + Ad, Af Ma - Mp, DQ%, (H) + (Hd), (A) + (Ad), Cg, Fd, 3r + (2)/R, W, D, Dd, S, P, and Cl. (For explanation of these variables the reader is referred to Exner, 1974).

APPENDIX D

Given the number of Ss involved in the study only 15 variables could be examined per MANOVA. Therefore, three MANOVA's were employed. In deciding how to distribute the variables among the three groups an effort was made to avoid multicollinearity, the grouping of variables with extremely high correlations in the same MANOVA. For example, the overall form quality, or extended F+, (X+), was partially comprised of the form quality scores for percepts with form as the only determinate (F+). Thus the F+ variable and the X+ variable were evaluated using separate MANOVAs. The actual grouping by MANOVA was as follows: MANOVA 1, F+, sum Special Scores, L, A%, M, sum Shading, $3r + (2)/R$, W, D, Dd, S, R, P; MANOVA 2, X+, CF + C, FC, A + Ad, H + Hd, Blends/R, Zf, FM + m, Bt + Ge + Ls + Na, Fi + Ex + Sx + Bl, An + Xy, a - p; MANOVA 3, A + H, Hd + Ad, Afr, Ma - Mp, DQ%, (H) + (Hd), (A) + (Ad), Dg, Fd, Cl. (For explanations of these variables the reader is referred to Exner, 1979).

VITA

Max Nagle Overton was born in Madison, Wisconsin, on April 5, 1952. He attended various elementary schools in the midwestern and southern United States prior to moving to Knoxville, Tennessee, where he completed his primary and secondary education. After graduating from Fulton High School he attended Georgetown College in Georgetown, Kentucky, for two years. At the completion of his sophomore year he returned to The University of Tennessee, Knoxville. In December of 1973 Max received his undergraduate degree. He began graduate school immediately thereafter at The University of Tennessee and accepted a full-time position providing milieu therapy to emotionally disturbed adolescents. In August of 1975 he moved to Dalton, Georgia, where he worked for a mental health center and completed his M.S. in Educational Psychology. In the fall of 1978 he re-entered the University of Tennessee to work on a doctorate in psychology. On November 18, 1983, Max successfully defended his dissertation and completed his graduate studies. Max will officially receive his Doctor of Philosophy degree in March 1984.