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The Effects of the Attitudes of Guardedness and Openness on the Rorschach Performance of Psychiatric Patients

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**THE EFFECTS OF THE ATTITUDES OF GUARDEDNESS AND
OPENNESS ON THE RORSCHACH PERFORMANCE OF
PSYCHIATRIC PATIENTS**

By

Thomas W. Phelan

**A Thesis Submitted to the Faculty of the Graduate
School of Loyola University in Partial
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LIFE

Thomas W. Phelan was born in Oak Park, Illinois, on November 26, 1943. He graduated from Loyola University with a Bachelor of Science degree in June, 1966. In the fall of that year he began his graduate work in clinical psychology at Loyola. He worked there as a graduate assistant in the Psychology Department from September, 1966, until June, 1967. During the summer of 1967 he took his clerkship with the Veterans Administration West Side Hospital, and he has been working there up to the present on his internship.

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CHAPTER I

INTRODUCTION

The delineation of the various extrinsic factors which affect a person's performance on the Rorschach test is a comparatively recent development in Rorschach research. It is now generally accepted, both in theory and experimentation, that the apperception or projection involved in the test is not a pure and simple representation of the subject's basic personality structure alone. Zubin (1948, 1965) has suggested that the Rorschach be dealt with as a psychological experiment, and that as such it can be analyzed in terms of certain essential elements common to all experiments. The elements he refers to are such things as the subject, the experimenter, their rapport, the acceptance of the task by the subject, the final performance, etc. It is indicative of the expansion of Rorschach research that Zubin's list of elements doubled from 1948 to 1965.

To make valid inferences about a personality, therefore, one must be aware of the influence on the Rorschach of personality variables, non-personality variables, and factors

produced by the interaction of the two. This thesis is an attempt to study what is most often one of the latter factors, and which might be termed a "guardedness-openness" test-taking attitude. In terms of Zubin's (1965) categories it would fall under "the carrying out of the task by the subject." Phillips and Smith (1965) discuss it in a section on sets. As Schachtel (1945) has pointed out, such sets can give important insights into a person's personality makeup. Thus their Rorschach manifestations must be known.

Guardedness could conceivably result from several things. It might be a consistent personality characteristic or a reaction to a particular examiner or a combination of both. Here it will be operationally defined simply as relative reluctance to admit personal conflicts or problems as measured by the Rotter Incomplete Sentences Blank (Rotter and Rafferty, 1950); openness will be defined as willingness to admit personal conflicts or problems on that test. The causes of guardedness here will not be specifically determined and in some cases might be multiple. However, what the study might lose in specificity is made up for by the fact that it improves upon previous studies in two ways: 1) it avoids artificial manipulation of the pre-test or test situation and 2) it employs a patient population. Thus it is hoped it is more relevant and valid in relation to the way the Rorschach is actually used. Studies which show the Rorschach to be subject to cer-

tain influences are merely academic and interesting unless such influences actually occur in the ordinary non-experimental and clinical use of the test.

This study also hopes to improve upon previous ones in looking at the opposite side of the coin, i.e., set or attitude will be studied in both its extremes, openness as well as guardedness. An attempt will also be made to detect any differences in these sets shown in the performances of two different psychiatric groupings, schizophrenics and non-psychotics. The problem here, then, is what does a schizophrenic or non-psychotic patient, who for some reason does not wish to reveal his problems, do in the clinical situation when faced with the unstructured and unfamiliar Rorschach task? Granted that he can control his responses on a sentence completion test, can he also manipulate his answers on the Rorschach in terms of the scoring categories usually considered indicative of guardedness? Can non-psychotics do this better than schizophrenics? And, conversely, how do "open" patients perform on the Rorschach in terms of deviations from the norm?

Operationally, this thesis will reduce to the following question: how do psychiatric patients who reveal little personal conflict (guarded), those who reveal much personal conflict (open), and those inbetween (moderate) on the Rotter Incomplete Sentences Blank, perform on the Rorschach in terms of six summary scores: R, F%, P%, F+%, A%, and D%.

The hypotheses are the following: 1) the guarded groups will show a lower median R, and higher median F%, P%, F+%, A%, and D% than the moderate groups, and 2) the open groups will show a higher median R, and lower median F%, P%, F+%, A%, and D% than the moderate groups, but these differences will not be as great as those between the guarded and moderate groups. It is expected that in terms of the six Rorschach indices the open and moderate groups will not perform too differently, while the guarded and moderate groups will show marked differences. In other words, guardedness will have more effect in lowering R and raising F%, P%, F+%, A%, and D%, than openness will have in raising R and lowering F%, P%, F+%, A%, and D%.

CHAPTER II

REVIEW OF RELATED LITERATURE

Phillips and Smith (1965) give one of the most complete and explicit discussions of guardedness and its opposite, which they term "expressiveness." Guardedness, they state, can be a characteristic of persons who are consciously evasive as well as of those who do not intend to be secretive. Both types of people, they claim, most likely hold in common "some fundamental assumption about the nature of the Rorschach situation" (p. 181). This assumption may be termed a set or attitude, and the result of it is that differentiating personal material tends not to be given in the test. Thus, according to Phillips and Smith, a person who is guarded on the Rorschach will show the following deviations from expectancy: 1) a lower number of responses, 2) a higher F%, 3) a higher P%, 4) a higher F+%, 5) a higher A%, and 6) a higher D%. An ambiguity appears, however, in Phillips and Smith's discussion when they go on to say, "Guardedness is best considered a descriptive term which refers to records which have few indivi-

duating characteristics...the guarded individual is best thought of simply as a person who develops a guarded record" (p.182). This purely descriptive use of the term implies a reluctance to infer that there is a specific type of test-taking attitude or set behind the guarded Rorschach protocol. To resolve this reluctance and validate such an inference, one should show that guarded subjects do produce the type of protocol characterized by the six features listed above. Though this would not completely solve the problem, it would place the inference of a guarded attitude on much more solid ground. This is one of the purposes of this study.

The interpretations of the six Rorschach indices mentioned above in relation to guardedness are fairly standard and widely accepted by clinicians. Klopfer (1954) states that few responses indicates "unproductivity." Since R is the variable perhaps most subject to the naive subject's control, one would expect that, before all else, the cautious or fearful subject would reduce his productivity in order not to expose himself or render himself vulnerable. In increasing his A% and P% it is usually thought that the guarded person avoids self-revelation by emphasizing stereotyped and conventional thinking. Since animal responses are given very frequently, Rorschach (1942) first saw such responses as an index of stereotypy. With too high an A%, says Beck (1967), the person becomes "stimulus bound to the most recognizable content

form" (p.343). It might be said, in other words, that the guarded person takes no chances in responding. The interpretation of a high P% is similar. Klopfer (1954) says a high P% can indicate a "strong emphasis on seeing the world in the obvious, agreed-upon way" (p.312). According to Beck (1967) a high P% in some people may "represent a defensive maneuver in its projection of effort at being overconventional" (p.348). The high D% in relation to guardedness, according to Klopfer, arises in a person due to "insecurity, a fear of losing his bearings if he does not stick close to the obvious facts" (p.305). Overemphasis on F responses protects the individual by allowing only a narrow and rigid responsiveness which excludes emotional and personal reactions. Similarly, Beck states that too high an F+ may indicate an overly rigid intellectual control and an impoverishment of flexible adaptability. In summary, the six indices of guardedness given by Phillips and Smith indicate both a restriction of the quantity and a control of the quality of output so that only the acceptable, conventional, and non-idiosyncratic appear.

It is felt that guardedness and openness can best be thought of here simply as sets to reveal oneself or to conceal oneself (Spivak, Levine, and Graziano, 1964). These attitudes have seldom been studied directly. What one finds in the literature, rather, is a number of studies which fall on a continuum in the degree to which they might be thought

to generate the guarded and open attitudes. Most of the relevant studies were intended explicitly to study either set or anxiety. In practice, however, set and anxiety - especially in relation to guardedness and openness - are often merely two different ways of looking at the same thing.

One of the most relevant studies and one which produced the most positive results was that done by Henry and Rotter (1956). They felt that people who considered the Rorschach as a test of sanity would show more caution in dealing with it. They hypothesized that this caution would be revealed in the production of a lower R, fewer W, and more F, F+, A, and P responses. A control group of 30 college women received the usual Rorschach instructions. The experimental group of 30 women were told in addition that the Rorschach was used to test sanity. The results provided significant confirmation, except for W, for the notion of the guarded protocol. The experimental group gave fewer responses and more F, F+, A, and P responses than the control group.

It would seem that the attitude generated by Henry and Rotter's experimental instructions would be equivalent to guardedness as used in the present study. In addition, since psychiatric patients are seldom unaware of the purposes of psychological testing, Henry and Rotter's study has some direct relevance to actual testing in the hospital setting. Their study was well designed. They employed two statistical methods in dealing with their data. One was to calculate from raw

scores the percentage values for the different Rorschach variables and then to use t tests to test group differences. As will be mentioned later, this method is subject to bias in that it does not control for R. However, Henry and Rotter also used equalized scores designed to eliminate the influence of a reduction in R, and it is most significant that their group differences held up even when such scores were used. Thus their study seems to provide dramatic confirmation of the guarded protocol. Qualifying its significance, however, might be the intelligence and test-taking sophistication of the subjects, college women.

In a similar vein Schwartz and Kates (1957) told an experimental group of female college sophomores that they were looking for psychopathology on the Rorschach. They gave the test once and then told their subjects that the personality picture they had presented was one of serious maladjustment. They then gave the test again, counterbalancing between first and second administrations the usual Rorschach test with the Behn Rorschach. With this stress the group gave significantly less W responses and a greater number of F responses on the second administration. The authors interpreted this as "behavioral constriction." Other scores, however, did not vary significantly.

Though this study was quite similar, with regard to subjects and set, to that of Henry and Rotter (1956), the re-

sults were quite different. One explanation for this might be that in order to control for R, Schwartz and Kates scored two responses for Cards I through IX and four responses for Card X. Thus each subject was required to give a minimum of twenty-two responses. Such a requirement no doubt acted against the natural tendencies of some guarded subjects to give fewer responses, and thus it might have artificially altered the distribution of determinants and contents that some subjects would have given of left to their own devices. The use of re-testing presents another problem in the possibility of a conscious bias in the second testing, especially with sophisticated college students. When told that their first performance had revealed maladjustment, it is likely that some subjects tried consciously to alter their subsequent performance in order to change the picture. The problem then becomes similar to that involved in the faking studies of Fosberg (1938, 1941) and Carp and Shavzin (1950), which will be mentioned later. These studies revealed no consistent differences when subjects attempted to fake the Rorschach.

Lord (1950) used, among other things, a technique which might be thought to have produced guarded and open attitudes in subjects. She had examiners play either a warm and accepting role or a cold and forbidding role in the testing situation. In the accepting situation subjects produced more responses than in the cold one, but the difference missed significance

at the 10% level. Paradoxically, though, subjects in the cold situation still gave more responses than those in a neutral, standard test administration. The lowest mean F% occurred in the warm situation and the highest in the cold condition, but again the differences did not reach significance. Lord did not study F+. A%, in accord with expectations for the guarded protocol, was significantly higher in the cold administration than in the warm one. P showed a curious reversal in that the subjects in the accepting situation gave significantly more populars than those in the cold situation. Lord interpreted this as "increased thinking of a popular or communal type" (p.29). D% did not vary significantly. Lord concluded that the warm administration produced more intellectual activity, creativity, and communal thinking, and less stereotyped thought; while the cold situation produced just the opposite.

In relation to the guarded protocol Lord's findings are equivocal. It seems likely that the warm and cold situations did not generate in subjects open and guarded attitudes, and Lord herself did not claim that they did. The equivocal results and the fact that R, usually the most sensitive to varying influences, did not differ in the two types of administrations seems to indicate that the warm and cold examiners did not substantially change the test-taking attitudes of the subjects, at least as regards guardedness and openness. Lord has a tendency to generalize beyond her data. Considering the

large number of significance tests conducted and her acceptance of the 10% level, it is to be expected that some of her results capitalized on chance. Thus the difference in A% and the reversal in P are to some degree suspect. Two other reservations about Lord's study should be mentioned: the use of a college population and the fact that each subject took the test three times.

The above studies might be termed studies of "covert set," according to a distinction made by Zax, Stricker, and Weiss (1960). In such studies the inducement of a certain set in subjects is implicit and subtle. Other studies related to this thesis have used "overt" set, where subjects are explicitly instructed to respond in one way or another. It is felt that studies of overt set do not as realistically approximate the actual attitudes of guardedness and openness as do studies of covert set, though they still have relevance here. Such studies include two early experiments done by Fosberg (1938, 1941). He asked his subjects to make the best possible impression and the worst possible impression on the Rorschach. He reported that for the most part the test was not subject to faking, since most of the indices showed a high stability through his different conditions. Carp and Shavzin (1950) criticized Fosberg's statistical methods. Fosberg had reported reliability correlations in the .80's and .90's. These, Carp and Shavzin pointed out, are as high or higher than those

reported for most personality and even intelligence tests. Thus they seemed spuriously high. Carp and Shavzin pointed out several weaknesses in Fosberg's statistics that might have accounted for such high correlations: 1) Fosberg combined some Rorschach categories and left others - many with low frequencies - alone, 2) he applied the correlation coefficient to the whole test, thus making the erroneous assumption that Rorschach categories can be treated as class intervals, and 3) his method was vague, e.g., he did not state whether he calculated a correlation coefficient for each individual and then found the mean or whether he put all the responses in each category together and then calculated the correlation.

Carp and Shavzin attempted to replicate and improve statistically upon Fosberg's study. They asked their subjects to 1) make a bad impression in order to stay out of the army and 2) make a good impression in order to be released from a mental hospital. They found that statistical treatment utilizing group differences yielded no consistent changes in any scores due to either type of faking. However, they did find wide individual differences in performance, though the direction of such variations could not be predicted. They therefore concluded, in contradiction to Fosberg, that the Rorschach is not immune to faking. Though Carp and Shavzin's conclusion was in disagreement with Fosberg's, their data were actually similar. They were determined, it seems, to

prove that the Rorschach was subject to faking, and they could probably have made this conclusion from Fosberg's data. Carp and Shavzin's method was biased in the direction of the conclusion they wished to make. Analysis of group differences was unfruitful, but their smaller number of subjects, 20, and the fact that each subject participated in both conditions gave exaggerated emphasis to individual differences. Here again the conscious element in the test-taking attitude, and the probable feeling of subjects that they should do something different in the different conditions, places serious question on the generalizability of the studies of Fosberg and of Carp and Shavzin to the actual use of the Rorschach. To the extent that such studies of faking can be generalized to the actual Rorschach situation, they would suggest that the six criteria of guardedness mentioned above would not hold up, i.e., they would not discriminate a guarded from an open group.

Several studies which have relevance here were intended explicitly to assess the effects of anxiety on Rorschach performance. Phillips and Smith (1965) state that "the criteria for guardedness...are the classic Rorschach signs of anxiety" (p.183). Anxiety studies vary, however, in their relation to the present study, because guardedness and anxiety cannot be simply equated, i.e., anxiety does not always lead to guardedness. Spivak, Levine, and Graziano (1964) pointed out that while ego-threat produced a restricted Rorschach record,

hypnotically induced anxiety did not. They asked college students to act as if they were anxious, were seeking help, and wanted the examiner to know all about them. They asked other subjects to act as if they were anxious but wanted to conceal their personality from the examiner. The authors analyzed the Rorschach records in terms of an Index of Repressive Style which evaluated the subjects' verbalizations rather than formal scoring categories. They found that the "reveal" instructions led to a significant decrease in repression, while the "conceal" instructions showed no difference from a "be yourself" condition. The authors concluded from their study that a subject's set to cooperate with the examiner or to defend himself by concealing may be more influential in his Rorschach performance than mere anxiety alone.

The observation of Spivak, Levine, and Graziano does not touch directly the question of how anxiety affects certain formal Rorschach scores. The relevance and nature of hypnotically induced anxiety as well as the ability of subjects to act "as if" they are anxious is also questionable. Their conclusions, nevertheless, are suggestive and indicate that one must approach with caution Phillips and Smith's equation of the effects of anxiety and of guardedness upon Rorschach scores. Common sense would suggest that there can be open persons who are anxious as well as guarded persons who are not anxious. This reservation should be kept in mind in

evaluating the following anxiety studies as they relate to the present study of guardedness and openness.

In one anxiety study Berger (1953) felt that psychiatric patients just entering the hospital would be more anxious than those who had been there for six months. He therefore gave the Rorschach to an incoming group of patients and to an established group. Of the indices of guardedness the following were confirmed by the anxiety group: fewer R, more F+, and more A. However, the incoming group also gave fewer P responses, contrary to what one might expect. After six weeks the same group was retested and the original differences disappeared. This seemed to indicate that their original anxiety had for the most part subsided.

Berger's study improves upon some other studies in that it employs an unsophisticated patient population rather than college students. The author's assumption, however, that admission itself is stressful might be questioned. Many people are relieved when they can enter the hospital. Statistically his method is at fault since he used means for the various Rorschach variables and did not control for R. Berger, however, was neither naive nor mute about this, and he proposed an interesting explanation for his procedure. He felt, in contrast to most other writers, that R was actually dependent upon the other Rorschach variables and not vice versa. In other words, the increase or decrease in such things as A, F,

D, etc., gave rise to corresponding fluctuations in R, and therefore to control for R in analyzing mean scores is a mistake. Berger's rationalization is interesting, but it seems to overlook the fact that formal Rorschach scores reflect secondary characteristics of responses and cannot be considered as primary causative factors in themselves.

Krasner and Kornreich (1954) compared the Rorschach performances of a group of anxiety neurotic patients with those of a group of normals. Their anxiety group showed fewer R and more P responses. Such criteria for the two groups, however, are very crude, and it is not surprising that they did not find many group differences. The difference in P they did find, though significant, was not of much consequence. It was only .26 and its meaningfulness was further obscured by the authors' use of means and no control for R.

Several other anxiety studies will be briefly mentioned, though their relevance to guardedness is limited. They are cited because they give more perspective on the generally negative and usually inconsistent findings of anxiety studies. These studies differentiated groups on the basis of the Taylor Manifest Anxiety Scale (Taylor, 1953) and then compared their Rorschach performances. Goodstein (1954) found a low, significant correlation of the MAS with R only. Holtzman, Iscoe, and Calvin (1954) found no significant differences on any variables in the Rorschachs of high and low MAS scorers.

Goodstein and Goldberger (1955) found that psychiatric patients who scored high on the MAS had fewer W responses than those scoring low. Thus, though Phillips and Smith refer to "classic" Rorschach signs of anxiety, the literature only partially and inconsistently supports them. However, in these studies anxiety is not really a set, as guardedness is here, and it more closely approximates what is usually called "free-floating" anxiety. The possibility therefore remains that in this study the Rorschach indicators of guardedness will find more experimental support than the classic signs of anxiety.

Wohl (1957) gave some general support to the Rorschach indices of guardedness in a different kind of experiment when he studied "constriction." He defined constriction as a narrowed responsiveness and a tendency to avoid the expression of extremes of feeling. As such it is not unlike guardedness as thought of here. The Rorschach indices of constriction, according to Wohl, are high F%, F+%, A%, and lowered R. Wohl combined these into one index and correlated it with constriction as measured by certain other tests. One of his other measures was mean number of words per story on the TAT, a measure which would also seem to be very much related to guardedness and openness. A low number of words in a TAT story is akin to a reduction of R on the Rorschach, which Henry and Rotter (1956) and others found to be related to cautiousness or guardedness. This effort at reduction of productivity

would seem to be perhaps the most elementary way of concealing oneself. Like the present thesis, however, and unlike the studies reviewed, such as that of Henry and Rotter, Wohl did not experimentally manipulate his subjects' set. He used the tests as they had been given under fairly normal conditions. His combined Rorschach index and the TAT measure correlated significantly (.34). However, Wohl found only four of fifteen inter-test correlations to be significant, and he concluded that constriction should probably not be considered as a general personality characteristic, but rather as one dependent upon specific situations. His conclusion, if valid, might be interpreted in two ways in regard to the present study. To the extent that the ISB and the Rorschach can be thought of as part of the same situation, i.e., psychological testing in a psychiatric hospital setting, guardedness or openness should generalize to both tests and a relationship between the Rorschach and ISB indices used here should be found. However, to the extent that the Rorschach test, an interpersonal, more structured, and usually more anxiety arousing situation, differs from the ISB test, a self-administered and more structured one, one should expect to find more openness in the ISB generally, and more guardedness on the Rorschach. Though this second interpretation, if true, might tend to dilute the findings of the present study, it is not seen as too serious a problem. It is in a sense con-

trolled for by using subjects' relative standing with regard to guardedness and openness on the two tests; a person who is more guarded on the ISB, when compared to the rest of his group, should also be more guarded on the Rorschach.

Neuringer (1962), in attempting to explain the equivocal results of anxiety studies, has pointed out that Rorschach scores differ in their relationship to lab-induced anxiety and real-life anxiety. When intelligent and verbal college students are used along with laboratory anxiety, he says, one tends to get a lower R, more surface shading, fewer W, fewer P, and more M and m. However, when people are tested who are undergoing real, long-term situational stress in their lives, one tends to get fewer R, more rejections, more F, and less M, m, and color responses. It is as if the former group resorts to a vigilant assessment of the blots under stress, while the latter group avoids coming to grips with the blots and prefers mundane, uninvolved responses.

Aside from attempting to explain the equivocal results of past studies, Neuringer's comment also raises the question of the generalizability of most of the studies reviewed. According to Campbell and Stanley (1963) generalizability means: "To what populations, settings, treatment variables, and measurement variables can this effect be generalized?" (p.5). Thus it appears very possible that studies using artificial manipulation of set and anxiety and atypical subjects

produce exaggerated or distorted effects which are not generalizable to the actual clinical use of the Rorschach. Zax, Stricker, and Weiss (1960), who reviewed a number of studies on non-personality factors in Rorschach performance, came up with just this conclusion. They found that many Rorschach variables, such as A%, varied considerably in atypical situations, but less change appeared in those studies in which testing was done under more standard conditions. They concluded that atypical situations may produce effects in which the practicing clinician is not interested. Since the Rorschach is used extensively in the psychiatric hospital, it is helpful to know what factors affect it as it is used there. As Dunnette (1966) says, "It should not really be too heretical to suggest that...laws describing the behavior of certain selected human subjects - such as psychology sophomores - may upon examination prove only weakly applicable to many other individuals" (p.347). Therefore, more valid and relevant generalizability is one of the goals of this thesis.

The observation of Spivak, Levine, and Graziano (1964) also affects the generalizability of the conclusions of anxiety studies to the present study. If their statement is valid, then the effects of a set, such as guardedness or openness, take precedence over the effects of anxiety and should therefore be evaluated apart from them. Consequently, this study attempts to assess the effects of set rather than

anxiety, and specifically, a set to reveal and cooperate or to conceal and not cooperate with an examiner.

In summary, several conclusions can be drawn from the studies reviewed. First, one cannot find a great deal of studies that deal directly with guardedness and openness. The studies range from that of Henry and Rotter (1956), which seems to directly involve guardedness, to that of Krasner and Kornreich (1954), which simply evaluated the performance of anxious people on the Rorschach. This it appears that more work needs to be done in evaluating guardedness and openness directly. These test-taking attitudes involve anxiety about the testing, and not merely free-floating anxiety or stress unrelated to the testing. As Spivak, Levine, and Graziano (1964) suggest, the set or desire to conceal oneself on a test is related to the perceived ego-threat generated by the examining situation.

Secondly, the studies reviewed do not show much consistency in their results. They are reviewed and summarized in Table 1. Each of the Rorschach indices has shown positive findings in at least two studies. These positive findings, however, are largely overshadowed by negative results. R has been the most sensitive to the attitudes and sets studied (Henry and Rotter, 1956; Berger, 1953; Krasner and Kornreich, 1954; Goodstein, 1954). However, even with R negative findings predominate. For the variable P there are positive findings

Table 1
Results of the Studies Reviewed in relation
to the Guarded Protocol

Study	R	F	P	F+	A	D
Henry and Rotter, 1956	C	C	C	C	C	
Schwartz and Kates, 1957		C				C
Lord, 1950			R		C	
Fosberg, 1938, 1941						
Carp and Shavzin, 1950						
Berger, 1953	C		R	C	C	
Krasner and Kornreich, 1954	C		C			
Goodstein, 1954	C					
Holtzman et al., 1954						
Goodstein and Goldberger, 1955						C
Confirm hypothesis (C)	4	2	2	2	3	3
Reverse hypothesis (R)	6	8	6	9	8	8
Negative findings	0	0	2	0	0	0

(Krasner and Kornreich, 1954; Henry and Rotter, 1956), but in just as many studies the findings have been in the opposite direction from that one would expect on the basis of the hypothetical guarded protocol (Lord, 1950; Berger, 1953).

Thirdly, though it is hard to find a consistent and meaningful explanation for the varying results of these studies, it has been suggested that the type of subjects used plays an important role in the results obtained. Most of the studies relevant here have used college students as their subjects. It is well known that such subjects are intellectually and psychologically more sophisticated than the general patient population with whom the Rorschach is most often employed. Students approach a psychological experiment as a kind of problem solving situation in which they try to discover what the experimenter is up to. As was pointed out in several studies (Fosberg, 1938, 1941; Carp and Shavzin, 1950; Schwartz and Kates, 1957), the possibility of conscious and more or less deliberate manipulation may have affected the results in these studies. The writer believes that sophisticated subjects, with or without conscious manipulation, would tend to contribute to more positive findings in studies such as those reviewed here.

Since the Rotter Incomplete Sentences Blank (Rotter and Rafferty, 1950) was used here to measure guardedness and openness, the literature dealing with its standardization, relia-

bility, and validity will be reviewed here. This test consists of 40 items which are scored individually on a scale from 0 to 6 depending upon the degree of healthy adjustment or the degree of conflict revealed. Higher scores indicate greater conflict. The test has a college form and an objective scoring system which yields a single numerical figure which is considered as an index of "maladjustment." Rotter operationally defined maladjustment in several ways, such as need for counseling, which will be further explained in the discussion of the test's validity. The ISB was standardized on 299 college freshmen, of whom 85 were women and 214 men. The Rotter manual (Rotter and Rafferty, 1950) reports a mean score for the males of 127.5 with a standard deviation of 14.2. The corresponding figures for the females were 127.4 and 14.4, respectively.

The reliability of the Rotter ISB reported in the literature has usually been excellent. Rotter and Rafferty (1950) report a split-half reliability of .84 for 124 male records and .83 for 71 female records. Their reported inter-scorer reliability is better, .91 for fifty male records and .96 for fifty female records. The objectivity of the ISB scoring has also been supported by many other studies which report inter-scorer reliabilities of better than .90 (Cass, 1952b; Churchill and Crandall, 1955; Bieri, Blacharsky, and Reid, 1955; Arnold and Walter, 1957; Jessor and Hess, 1958).

Rotter validated the ISB on different subjects than those used for the development of the scoring system. Two groups of "maladjusted" subjects were established. Group I consisted of students rated by their instructors as maladjusted. Group II consisted of self-referrals to a psychological clinic, persons referred by vocational advisors for personal counseling, and college students judged by advanced student clinicians as clearly maladjusted. Group I males had an ISB mean score of 133.7 and Group I females had a mean of 137.0, compared to means of 119.4 and 121.1, respectively, for "adjusted" males and females. Group II males had an average score of 149.2 and Group II females averaged 155.3. This differentiation of adjusted and maladjusted cases supported the validity of the ISB. Rotter and Rafferty also reported that a cut-off score of 135 would correctly identify 59% of the maladjusted cases and 78% of the adjusted. The biserial correlations for ISB scores and adjustment classifications were .50 and .62, respectively, for females and males. These results have been generally supported by subsequent studies, with relatively few negative or unsubstantial findings. Other biserial coefficients reported between ISB scores and adjustment ratings or classifications include: .67 (Barry, 1950), .49 (Churchill and Grandall, 1955), .53 (Morton, 1955), and $-.16$ (Dean, 1957).

The ISB is widely used in psychiatric settings, though

it is evaluated impressionistically and the scoring system is seldom employed. Since the ISB college form was designed for use with an adult male population, it was felt that its applicability to psychiatric patients in a VA hospital would not be inappropriate. The manual provides separate scoring criteria for males and females. Since all the patients used in this study were male, it was felt that the manual could adequately handle their responses. In addition, only two of its forty items, "In school..." and "Reading...", can be considered as specific to a college population. The two chief differences between the ISB's standardization group and the VA patients are most likely age and severity of psychopathology. These factors, however, do not necessarily affect greatly the equal treatment of all patients by the Rotter manual. Such equal treatment is what is most essential here, since guardedness and openness are here defined relatively and solely within this patient group, without reference to any external norms.

The numerical score derived from the ISB was used here as an index of guardedness or openness rather than maladjustment. The rationale for this usage involves several factors. First, it is generally accepted that the sentence completion method, although a projective technique, is more subject to conscious control than, for example, the Rorschach or TAT. Rotter (1950) states that with this method "responses tend to

provide information that the subject is willing to give rather than that which he cannot help giving" (p.3). Campbell (1957) says, "rarely is the respondent unaware that he has been revealing his own attitudes" (p.208). Forer (1950) calls this technique a "controlled projective test" (p.3). Secondly, it was felt that with a psychiatric population the ISB scores would be generally considerably higher than the college norms and that this would tend to weaken the test's discriminatory power as a pure index of maladjustment. In other words, the discrimination between normal and maladjusted is considered easier to make in terms of one numerical score than the discrimination between severely maladjusted (e.g., neurotic) and more severely maladjusted (schizophrenic). Thirdly, it is felt that a psychiatric patient could theoretically answer, without falsification, almost every item in such a way as to give a 6 point, or maximum conflict, score for that item. His existing pathology, in other words, would give him abundant material on which to draw in answering almost any item. Therefore, if his score does not approximate the theoretical maximum (240), this is very likely a function of some set or attitude, such as guardedness. This hypothesis will be supported if the ISB scoring does not discriminate non-psychotic and schizophrenic groups, or if the mean score for the non-psychotic group is the higher of the two. Lastly, in comparing open and guarded groups the extreme ISB scores at

each end of the distributions will be used, which should facilitate the measure of set rather than pathology. Thus a low score in the non-psychotic group will be taken to reflect a guarded non-psychotic rather than a relatively more well adjusted one. In summary, guardedness as measured by the ISB will mean reluctance to reveal personal conflict. As such it is very similar to the sets utilized in several of the studies reviewed earlier (e.g., Carp and Shavzin, 1950; Henry and Rotter, 1956; Schwartz and Kates, 1957).

CHAPTER III

PROCEDURE

The subjects for this study were 200 psychiatric patients, all of whom had been admitted to the psychiatric ward of a Veterans Administration hospital within the last ten years and who at some time during their hospitalization, usually within two weeks after admission, had been given a battery of psychological tests which included the Rorschach and ISB. All patients were male and between the ages of 18 and 55 at the time of testing. The psychological tests were administered under the usual conditions. They are usually requested by the case doctor for patients about whom more information is needed or who have VA claims pending. The referral questions involve personality evaluation, differential diagnosis, organicity, and treatment potential. The tests are administered by staff psychologists in private interview rooms.

Each patient upon discharge has a summary written by his physician which includes the psychiatrist's final diag-

nosis. This summary diagnosis was used to select 100 schizophrenic and 100 non-psychotic patients. It was felt that the psychiatrist's diagnosis would be more valid because in making it the physician had at his disposal not only knowledge of the patient over a period of time, but also the report from psychological testing. Though diagnostic disagreements between psychologist and psychiatrist were not uncommon, they were most often between types of schizophrenia, especially paranoid versus undifferentiated, and between different subdivisions within the non-psychotic group. It was felt that the few disagreements between a schizophrenic and a non-psychotic diagnosis were not enough to seriously bias the data, especially since these categories are rather crude to begin with. Patients with organic involvement or mental deficiency were excluded from consideration. If either organicity or mental deficiency was mentioned in either the psychological report or the physician's summary, the patient's record was not used. Those who fit the criteria were selected in alphabetical order until the desired population of 200 was complete. The non-psychotic group consisted finally of the following diagnostic subgroups: 45 anxiety reactions, 22 depressive reactions, 10 passive-aggressive personalities, 4 inadequate personalities, 4 paranoid personalities, 4 emotionally unstable personalities, 3 schizoid personalities, 2 dissociative reactions, 2 adult situational reactions, 2

psychophysiological reactions, 1 sociopathic personality, and 1 passive-dependent personality. The schizophrenic group had the following makeup: 46 undifferentiated, 36 paranoid, 13 schizo-affective, 4 simple, and 1 catatonic.

The Rorschach scores were taken from the Rorschach summary sheet in the file of the patient's psychological tests. The scoring of the original examiner was used, since all the protocols were scored in the same fashion according to Beck's (1949) system (cf. Fiske and Baughman, 1953). The numerical values for F%, F+%, and A% were checked and recalculated where necessary. P% and D% had seldom been calculated previously, so they were computed.

~~The~~ The Incomplete Sentences Blanks had not been previously scored with the numerical scoring system. Each protocol was scored by the writer, a graduate student in clinical psychology, according to the Rotter manual (Rotter and Raftery, 1950). To avoid a possible bias from previous scoring, none of the scores for the individual protocols was totalled until all had been scored. The manual was followed as closely as possible. This meant that responses that exceeded 10 words in length were given an extra point, unless they were already 6 point answers. Also, omissions were prorated rather than being scored in the direction of guardedness.

To check the reliability of the ISB scoring, 50 protocols were randomly selected. A number from 1 to 4 was

selected by chance and then, beginning with the protocol with that number, every fourth test was selected. It has been shown that the ISB can be reliably scored by persons with little psychological training or experience (Rotter and Wil- lerman, 1947; Churchill and Crandall, 1955). The second scorer employed here was a college graduate with no graduate training in psychology. It was felt that the test was easy enough to score, and the instructions and training in the manual good enough, that she could reliably score the ISB. The Rotter manual provides six training cases which can be scored in- dependently and then checked against the authors' scoring. Both the writer and the other scorer read the manual and scored the practice cases. Differences with the manual were discussed. Subsequent scoring was done independently, with the second scorer scoring the 50 randomly selected protocols. Interscorer reliability was calculated separately for the non-psychotic and schizophrenic groups according to the rank difference correlation procedure (Tate, 1965, p.162). The resulting reliabilities were $r = .91$ for the non-psychotic group and $r = .93$ for the schizophrenic group. Thus for the entire patient group the interscorer reliability was $.92$. This compares well with the typical interscorer reliabilities reported for the Rotter in the literature, such as $.91$ re- ported by Rotter, Rafferty, and Schachtitz (1949) with male subjects and $.94$ reported by Churchill and Crandall (1955)

using scorers with a minimum of psychological training.

The mean ISB score for the non-psychotic group was 150.4 with a standard deviation of 19.8; the mean score for the schizophrenic group was 143.4 with a standard deviation of 19.4. It is interesting to recall that Rotter and Rafferty (1950) reported a mean of 127.5 for 214 male college freshmen and a standard deviation of 14.2. As expected the patients scored generally and significantly (.01) higher and also showed a greater variability.

The significance of the difference between the ISB means of the non-psychotic group and the schizophrenic group was calculated. The test used was a standard test for the difference between independent sample means, according to the formula given by Tate (1965, p.256). The formula yielded a z value of 2.50 which indicated significance at the .01 level for a two-tailed test. It is interesting that the mean score for the non-psychotic group was significantly higher than that of the schizophrenic group. If the test were measuring solely maladjustment, the schizophrenic group should have scored higher. The fact that it did not meant that another factor, probably a test-taking attitude, was affecting performance. This result, therefore, supported the use of the ISB as a measure of set, and in particular of guardedness. It agrees with a statement by Phillips and Smith (1965) that guardedness tends to be proportional to pathology, i.e., the more psycho-

pathology a person actually has, the more guarded he tends to be.

After the group means had been established, the ISB scores in each of the two patient groups were subdivided into three groups: 1) the lowest 25 scores in each group were designated as the guarded group, 2) the highest 25 scores in each group became the open group, and 3) the middle 50 scores were termed the moderate group. Since there were 100 subjects in each of the patient groups, the ISB cut-off points were determined by calculating the 25th and 75th percentiles for each of the two groups. For the non-psychotic group the 25th and 75th percentile scores were 136 and 163, respectively; for the schizophrenic group they were 128 and 159, respectively. Each of the six groups was then isolated. The resultant ISB means for the non-psychotics were 126.5 for the 25 guarded patients and 176.1 for the 25 open patients; for the schizophrenic groups these respective means were 121.2 and 169.3. It can be seen from these mean scores that the guarded and open groups were quite different. They showed an average difference of more than one point per sentence, so the open group revealed much more conflict than the guarded group. If the means are divided by the number of sentences in each protocol (40), it can be seen that the average score per sentence for the open groups was about 4, which indicates a conflict response. The average score for

the guarded groups, on the other hand, was close to 3, which indicates a neutral response.

Because of the skewed distribution of R and the tendency of higher scores to disproportionately elevate a group mean, the median values of R were calculated for each group. Median values were also calculated for F%, P%, F+%, A%, and D%, since all of them depend to some extent on R.

In evaluating the significance of differences between groups an attempt was made to avoid the statistical errors sometimes made in Rorschach studies. Cronbach (1949) has pointed out several of these errors and has recommended other procedures. With the Rorschach variables used here, the normality of the distributions cannot be assumed and units are not always equivalent. The distribution of R is markedly skewed and the other values, which are percentages, are not free to vary equally in both directions from their medians or means. Therefore, in evaluating group differences a procedure suggested by Cronbach was used. With skewed Rorschach distributions, he says, to "test the significance of a difference between two groups, the best procedure is to make a cut at some suitable score and compare the number of cases in each group falling beyond the cut, using chi square" (1949, p.370). The selection of a cut-off point was done by inspection. Using the median or mean score as a base, several cut-off points both above and below it were examined. The cut-off point

finally selected was that point which seemed to suitably maximize group differences. Though this is a rather arbitrary procedure, an effort was made to avoid excessive capitalization on chance factors by requiring that the cut-off point be either 5 or 10 percentage points above or below the median or mean. The cut-off points selected in each test of significance and the resulting chi square values are shown in the Appendix. The P value refers to the percentage of occasions in which one would expect to get, purely by chance, an equivalent or larger difference. For each of the group differences chi square was calculated from a fourfold contingency table according to the formula given by McNemar (1962, p.220).

CHAPTER IV

RESULTS AND DISCUSSION

As can be seen in Table 2, in comparing the guarded and moderate non-psychotic groups four of the six differences are in the expected direction: R, F%, P%, and A%. Only one of these, however, reached significance at the 5% level, F%. The reversals in D% and F+% were not significant.

In comparing the moderate and open non-psychotic groups four differences, R, F%, A%, and D% are in the expected direction, but none of them was significant. The differences in F+% and P% in the opposite direction from that hypothesized were not significant.

The guarded and open non-psychotic groups showed five differences in the hypothesized direction. None reached significance at the .05 level. The one difference in the opposite direction, F+%, also was not significant.

In the schizophrenic group the number of differences in the opposite direction from that hypothesized increased and no differences in either direction reached significance.

Most of the group differences in this study were not

Table 2
Median Values of All Rorschach Variables
for the Six Groups

	R	F%	P%	F+%	A%	D%
Non-psychotic:						
Guarded.....	21.8	65.0 ^a	27.2	76.4	47.9	68.1
Moderate.....	24.3	60.0 ^a	24.1	81.6	47.7	72.6
Open.....	26.5	57.5	24.5	83.0	45.8	67.0
Schizophrenic:						
Guarded.....	24.2	60.6	20.6	73.1	49.4	67.7
Moderate.....	21.6	61.8	21.6	76.7	47.5	64.2
Open.....	25.5	64.2	22.8	74.2	49.0	67.0

^aGuarded-moderate difference significant at
.05 level.

significant. Even the one significant difference, however, should be viewed with some caution. In all, thirty-six separate tests of significance were conducted. Since the .05 level was accepted as satisfactory, one might expect that two to three of the individual tests would reach significance by chance alone.

The results of this study, therefore, are largely negative, and as such they agree generally with the studies reviewed and summarized in Table 1. F% showed a significant difference in the non-psychotic group and therefore agreed with two studies (Henry and Rotter, 1956; Schwartz and Kates, 1957). These studies generated test-taking attitudes which most closely approximated the guardedness one would expect in the psychiatric patients studied here. Henry and Rotter told their subjects the Rorschach was a test of sanity and Schwartz and Kates told their subjects they were looking for psychopathology. It is difficult to explain, however, why of all the indices of guardedness only F% would increase in such a situation.

Two slightly different views might be taken concerning how F% increases. It might represent, as Klopfer (1954) says, a kind of conscious or unconscious attempt to make the world safer by stripping it of its personal and emotional connotations. On a more mechanical and non-dynamic level, however, F% might increase through a kind of default, since when no

determinant is explicitly verbalized F is scored automatically. Therefore a suspicious person who is hesitant to say much of anything during the inquiry might have more F responses scored even though he may have actually used color, shading, etc. A third possible explanation for an increase in F%, in terms of its relationship to R, will be discussed later.

If the present study is valid and has fairly accurately evaluated the ability of groups of psychiatric patients to conceal themselves on the Rorschach, then the classical guarded protocol as described by Phillips and Smith (1965) received only partial confirmation. One might wonder, therefore, how the notion came about and how these various Rorschach characteristics came to be grouped together. The data given by Fiske and Baughman (1953) shed some light on the problem. They attempted to assess the relationships of the different Rorschach variables to the total number of responses. They found many significant and sizeable correlations, and they also noted that the use of percentage values for a variable did not completely erase its correlation with R. If one calculates from Fiske and Baughman's data the F%, P%, F+%, A%, and D%, for the different ranges of R, it becomes readily obvious that, except for D%, as the number of responses decreases F%, P%, F+%, and A% all increase in direct proportion. These indices, lower R and higher F%, P%, F+%, and A%, are precisely what constitute Phillips and Smith's

notion of the guarded protocol. If R were lowered only by guardedness, the description of the average protocol of few responses as guarded would be entirely valid. However, R can also be decreased by organicity, depression, lower intelligence, and certain test-taking attitudes. Therefore what is called the guarded protocol might be better termed merely "restricted," or some other more general and noncommittal term.

CHAPTER V

SUMMARY AND CONCLUSIONS

Phillips and Smith (1965) have described the classical guarded Rorschach protocol as consisting of the following deviations from expectancy: lower R and higher F%, P%, F+%, A%, and D%. Rorschach research has attempted to validate this configuration rather indirectly and the results have been mostly, though not completely, negative. Henry and Rotter (1956) rather dramatically confirmed all aspects of the guarded record except for D% when they told college women the Rorschach was a test of sanity. In a similar study Schwartz and Kates (1957) received positive results for only F% and D%. Studies of faking good or bad on the Rorschach (Fosberg, 1938, 1941; Carp and Shavzin, 1950) are related indirectly to guardedness and openness, but they have found no consistent directions in the way people try to fake. Studies of the Rorschach correlates of anxiety have given sporadic support to some of the indices mentioned above. Such studies involved analysis of the Rorschach performances of incoming hospital

patients (Berger, 1953), anxiety neurotics (Krasner and Kornreich, 1954), and high and low scorers on the Taylor Manifest Anxiety Scale (Goodstein, 1954; Holtzman, Iscoe, and Calvin, 1954; Goodstein and Goldberger, 1955). These studies show some support for the reduction of R as an anxiety correlate, but they give no consistent confirmation of any of the other indicators of guardedness.

In attempting to pick up trends in this research, it was pointed out that one tends to get more dramatic results in the more atypical Rorschach situations (Zax, Stricker, and Weiss, 1960) and that there may be consistent differences in the results one gets from laboratory and real-life situations (Neuringer, 1962). These observations questioned the generalizability of past studies to the actual clinical use of the Rorschach and pointed to a need for further research.

The purpose of this thesis was to evaluate the classical notion of the guarded protocol. The investigation was also extended to include the opposite of guardedness, or openness. An attempt was made to do this in such a way as to avoid atypical subjects and the artificial manipulation of set.

Operationally, the thesis reduced to the following question: how do psychiatric patients who reveal little personal conflict (guarded), those who reveal much personal conflict (open), and those inbetween (moderate), on a sentence completion test perform on the Rorschach in terms of six

summary scores: R, F%, P%, F+%, A%, and D%.

The hypotheses were the following: 1) the guarded groups would show lower median R and higher median F%, P%, F+%, A%, and D% than the moderate groups, and 2) the open groups would show a higher median R and lower median F%, P%, F+%, A%, and D% than the moderate groups, but these differences would not be as great as those between guarded and moderate groups.

Two-hundred psychiatric patients, one-hundred schizophrenic and one-hundred non-psychotic, were selected from the files in a Veterans Administration hospital. According to whether they scored very low, very high, or inbetween on the numerical scoring of the Rotter Incomplete Sentences Blank (Rotter and Rafferty, 1950), they were placed into a guarded, open, or moderate group. The Rorschach performances of the different groups were then determined.

Significant results in the hypothesized direction were obtained for F% in a comparison of the guarded and moderate non-psychotic groups. No other results in the non-psychotic groups reached the .05 level of significance. In the schizophrenic groups there were many reversals in the direction of hypothesized differences and most group differences appeared to be chance fluctuations.

The largely negative results of this study are in general agreement with most previous studies. In relating

the increased F% to other studies, it appeared to increase in situations where subjects felt their psychological integrity was threatened, but it was difficult to explain why it should increase and the other indicators of guardedness should not.

The results of this study did not confirm the classical notion of the guarded protocol. In explaining how the notion of the guarded protocol arose, it was suggested that the configuration of higher F%, P%, F+%, and A% was largely a function of a lowered total number of responses.

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Appendix

Significance of Group Differences:

Non-psychotic Group

	R	F%	P%	F+%	A%	D%
Guarded-Moderate:						
Cut-off.....	21.8	73.3	32.5	82.5	60.6	74.9
X ²	3.24	4.76	1.19	0	.16	.44
P.....	05-10	05-02	30-20	---	70-50	70-50
Moderate-Open:						
Cut-off.....	26.5	52.5	21.6	85.3	42.8	57.9
X ².....	.44	0	.34	.03	.24	1.67
P.....	70-50	---	70-50	90-80	70-50	20-10
Guarded-Open:						
Cut-off.....	21.8	73.3	32.5	81.5	60.6	70.7
X ²	2.01	2.20	1.58	2.01	.12	.06
P.....	20-10	20-10	30-20	20-10	80-70	80-70

Appendix
Significance of Group Differences:
Schizophrenic Group

	R	F%	P%	F+%	A%	D%
Guarded-Moderate:						
Cut-off.....	24.2	65.7	29.8	79.3	53.3	66.6
X ².....	.24	.48	.85	1.38	1.16	.43
P.....	70-50	50-30	50-30	30-20	30-20	70-50
Moderate-Open:						
Cut-off.....	21.6	55.9	19.8	76.2	41.9	66.2
X ².....	.67	0	.24	.67	.18	.43
P.....	50-30	---	70-50	50-30	70-50	70-50
Guarded-Open:						
Cut-off.....	24.2	65.7	21.8	76.2	48.3	66.6
X ²	0	1.39	.32	0	0	0
P.....	---	30-20	70-50	---	---	---

APPROVAL SHEET

The thesis submitted by Thomas M. Phelan has been read and approved by the director of the thesis. Furthermore, the final copies have been examined by the director and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content and form.

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

Date

Signature of Adviser