

THE RELATIONSHIP OF HOSTILITY
RESPONSES AND WHITE SPACE
RESPONSES ON THE RORSCHACH

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THE RELATIONSHIP OF HOSTILITY RESPONSES AND
WHITE SPACE RESPONSES ON THE RORSCHACH

An Abstract
Presented to the
Graduate Council of
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In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in Psychology

by
Nancy K. Pfaadt

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ABSTRACT

The present study was conducted to determine the degree of relationship between hostility and white space responses on the Rorschach. The Rorschach was administered individually to 80 volunteer students on the Austin Peay State University campus, Clarksville, Tennessee. Seventy-one of the subjects were undergraduate students and nine were graduates. The mean age for the group was twenty-four years. Among the males, 19 were white and 4 were non-white; among the females, 49 were white and 8 were non-white.

Elizur's hostility scoring system was used to determine the hostility level (HL) of the subjects. The scoring system is based on the content of the subject's response. HL was determined by adding all the weights for each subject's protocol. HL% was then determined for each subject by dividing HL by R (total number of responses). HL% takes into account the effects of R.

A significant correlation of .20 ($p < .05$) was obtained between HL and S.

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To the Graduate Council:

I am submitting herewith a thesis written by Nancy K. Pfaadt entitled "The Relationship of Hostility Responses and White Space Responses on the Rorschach." I recommend that it be accepted in partial fulfillment of the requirement for the degree Master of Arts, with a major in Psychology.

John B. Martin
Major Professor

We have read this thesis and
recommend its acceptance.

Linda B. Rudolph
Second Committee Member

Garland E. Blair
Third Committee Member

Accepted for the
Graduate Council:

William H. Ellis
Dean of the Graduate School

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Chapter 1

INTRODUCTION

Rorschach's work with the inkblots suggested to him a possible relationship between the white space response(S) and a tendency toward opposition. Elizur devised a Hostility Scoring System or Scale (HS) to measure hostility responses on the Rorschach (cited in Goldfried, Stricker, and Weiner, 1971). Elizur defines hostility as feelings of resentment and enmity which are expressed in the individual's distorted attitudes toward others, which are too antagonistic or too submissive. Elizur views the concept as a relatively stable negative attitude with which the person views the world. The system treats hostility as a more generalized trait rather than a situational state, and the scale does not account for the way in which hostility is expressed.

Elizur's HS employs content scoring which represents a level of hostility; it does not consider the way in which hostility is expressed or reduced. Elizur reported studies comparing the interscorer reliability and obtained correlations which ranged from .78 to .99, with the average correlation coefficient being somewhere near .90. Elizur compared eight inexperienced scorers and found a mean correlation of .82, and in comparing his own scoring with these eight inexperienced scorers a correlation of .93 was

obtained. One intrascorer reliability study was conducted and after a one month period a correlation of .99 between the two scores resulted. Construct validity for Elizur's Hostility Level (HL) on the Rorschach, when compared to questionnaires and self-rating scales which consisted of fifty-five hostility- and anxiety-related items, was significant at the .05 level or better. Elizur's HL did not compare well to the TAT, possibly because of the inability to control for the social desirability aspect of the TAT (Goodstein, 1954).

Most validity studies based on Elizur's system have been favorable. Higher HL scores are generally found for individuals who have acted out aggressively in the past. Also HL and ratings by peers, therapist or estimates based on interviews designed to assess hostility level have proven to have relatively high correlations. Predictive validity studies for Elizur's scoring system have not been as fruitful, but this is not surprising because of the fact that the system indicates the degree of hostility and not the means of expression.

Weltman and Wolfson (1964) conducted a study on the undifferentiated, primary, and secondary space responses to oppositional and/or mastery tendencies. These researchers defined oppositional tendency as an attitude of hostility directed at an external demand or condition. Mastery striving was referred to as an attempt to find answers to these external conditions in an open-minded fashion. Three

assumptions were made to determine oppositional tendencies from mastery strivings. A 180° card inversion accompanied by a response was the first assumption of oppositional tendency or of mastery strivings. Second, for the response to be considered oppositional the accompanying response to the 180° card inversion had to have hostile ideation in the record. Third, for a mastery striving score the 180° card inversion and response had to be absent of hostile ideation. Hostile ideation was defined as a feeling or act of aggression by a human or animal figure. The results of the study indicated that the undifferentiated space response is related to oppositional tendency, with a Chi-square indicating significance well past the .001 level. The primary space response was also significant at the .001 level, and although secondary space response was in the direction predicted the Chi-square did not reach the .05 level of significance. The undifferentiated, primary, and secondary space responses were not correlated with the researchers' definition of mastery strivings, although the secondary space response was more closely related than the primary space response.

The intent of the Stein (1973) study was to validate the relationship between Rorschach white-space responses and oppositionality. A rating-scale of oppositionality was designed for the study. Forty enlisted Navy men volunteered for the research and were matched for age and intelligence. Half of the subjects were left-handed and half right-handed. Approximately one month prior to being

administered the Rorschach each of the subject's immediate supervisors completed the rating scale (Cooperative-Stubborn, Acquiescent-Contrary, Passive-Active, Unreasonable-Reasonable, etc.). The Harris Tests of Lateral Dominance was used to confirm handedness, and the Rorschach was administered individually. A white space score was obtained from the Rorschach. An oppositionality rating and a control rating were obtained from the oppositionality rating measure. Results indicated that left-handed subjects were rated by supervisors as significantly more oppositional and reported significantly more white space responses than the right-handed subjects. The data also indicate, for all subjects, that ratings of oppositionality are significantly correlated with white space scores at the .01 level. Stein stated that the more white space a subject reported, the higher they were rated on oppositionality.

Lester, Kendra, Thisted, and Perdue (1975) investigated the possibility of using the Rorschach as a predictor of homicidal behavior using multiple discriminate analysis. Protocols of 100 men convicted of homicide were compared to 50 protocols of men convicted of rape, nonsexual aggressive offenses, and nonaggressive offenses. The two groups were matched for age; there was a higher proportion of blacks in the murderer than in the nonmurderer group. The statistical results led to correct identification of 71% of the murderers and 66% of the nonmurderers. The researchers concluded that the Rorschach variables of S, animal, popular, and movement

discriminate with a good degree of accuracy the protocols of murderers from those of nonmurderers; therefore, the Rorschach may serve as a useful tool in clinical interpretation in the criminal population.

Assuming that the white space responses on the Rorschach are indicative of oppositionality, and further assuming that more digits remembered in a backward order rather than in a forward order on the digit-span subtest of the WAIS was indicative of oppositionality, Fox and Blatt (1969) conducted a study to determine the degree of relationship between these two variables. A significant relationship was found between these two independent measures at the .01 level. Fox and Blatt went on to discuss the validation of interpretative assumptions of psychological tests indicating that opposition can only be inferred due to lack of measured manifest overt behavior.

Counts and Mensh (1950) used hypnosis to induce hostility in their clients to assess the relationship of white space response to hostility. The subjects were studied according to personality characteristics using the Rorschach given by one researcher, then hostility was induced hypnotically and the same researcher readministered the Rorschach. The same researcher administered the Rorschach for the third time during a post-hypnotic session in which the induced hostility had been removed, and the fourth administration was conducted by a different researcher. Although significant results were not obtained from the study, white space

responses did increase after the hostility was induced. Counts and Mensh stated that although changes in "surface" hostility level occurred, the underlying hostility characteristic of the subjects did not change significantly.

The purpose of the study conducted by Bandura (1954a) was to investigate the significance of the white space response on the Rorschach. It is primarily assumed that S responses are an indicator of oppositional tendencies and that this tendency is expressed differently by basic personality configurations. If the S response occurs in an extratensive personality the form of opposition will be against the environment with stubborn, assertive, negativistic, and defiant behaviors being displayed. When the hostility is directed inward, feelings of inadequacy, self-distrust, and self-criticism are displayed. This is the introversion personality pattern. The ambiequal personality will express opposition by means of ambivalent tendencies or indecision. Teachers' ratings on four personality traits (negativism, assertiveness, inadequacy feelings, and self-distrust) were used as the independent criteria measure. It was hypothesized that a positive and significant correlation exists between the number of S responses and teachers' ratings of negativism in extratensive subjects; that number of S responses and ratings of inadequacy in introversive subjects would also be significantly positive; and that there would be no relationship in the reverse conditions of the above hypotheses. The teacher ratings

were reliable with correlations ranging from .71 to .83 and the S response reliability coefficient was .84. Results of the study indicate a correlation between negativism and S which was significant at the .01 level. None of the other three ratings attained significance.

One hundred and nine subjects were used in a correlational study by Rosen (1952) to test the hypothesis that S responses on the Rorschach and the psychopathic deviate (Pd) scale on the Minnesota Multiphasic Personality Inventory (MMPI) are significantly correlated in that both indices show an oppositional tendency. The Rorschach and MMPI records were collected from the psychiatric division of a Minnesota hospital. Patients diagnosed as psychopaths gave fewer S responses than other patients; MMPI Pd scores did not differ in patients otherwise classified; S responses were not related to MMPI Pd scores of diagnosed psychopaths; and S was significantly related to high Pd scores of non-psychopathic deviates. Rosen states that despite paradoxes in his study there is some evidence that S responses are associated with oppositional tendencies insofar as the Pd scale may reflect oppositionalism based on a cluster of variables including high Pd, use of S, high R on the Rorschach, high number of color responses, extratensiveness, and dilation. This cluster could conceivably indicate a general trait of impulsivity of which oppositionalism could be one aspect.

Ray (1963) worked from Rorschach's assumption that subjects with an extratensive experience balance and a high number of S responses on the Rorschach will not significantly change their opinions of autokinetic movement as a result of suggestions made by a planted prestige person; and that persons with the same extratensive balance but with a low number of S will significantly change their opinions in the presence of a planted prestige person. Ray defined oppositionality as one's failure to change one's own opinion of the autokinetic movement toward the prestigious person's judgement. Results revealed the high S group changed their autokinetic judgement significantly less than did the low white S group. Ray concluded that subjects with an extratensive experience balance who report 10% or more S tend to exhibit oppositional behavior. Another behavior that supports the Rorschach oppositional tendency concept is the fact that only subjects in the high S group failed to keep their regularly scheduled appointments or were late for their appointments, thus indicating stubbornness and contrariness.

Murray (1957a) defined opposition as a tendency to resist or contradict environmentally produced suggestions and even acting directly contrary to what has been instructed or suggested. He attempted with the use of the Hull Sway Test, Ink Blot Suggestion Test, Opinion Questionnaire, No answers on the Opinion Questionnaire, Instructions Test, and Self-Rating scale to validate Rorschach's suggestion

that S is indeed an indication of some sort of oppositional tendency in the extratensive individual indicated by opposition directed outward. One hundred and one subjects from a northwestern university were administered the above battery and then divided into two groups, one with nine percent or more S and those having no S. These two groups were in turn divided according to their experience balance (extratensive, introversive, ambiequal). Murray failed to reach results in agreement with his hypothesis. He states that for the population tested and the criteria used there were no significant correlations between S and extratensive individuals.

The purpose of the study in Ingram (1954) was to determine whether individuals with average to above average S would respond more aggressively to frustrating situations than those who produced fewer S. Aggression was defined on a continuum with socially acceptable and socially unacceptable behaviors at the two extremes. The Rorschach was originally administered to the subjects and then two months later they were instructed to work the Seashore pyramid puzzle. Three to seven days later they were exposed to a real life frustrating interview. The resultant behaviors in the two situations and the Rorschach score were then rated on five aggressive behaviors, of which hostility was one, and two nonaggressive behaviors. Results revealed the high S group to be more aggressive than the low S group in the interview situation; whereas in the puzzle situation the

high S group exhibited less hostility. In both conditions the correlations attained significance at the .05 level.

Murray (1957b) conducted a research project concerning the interpretation and validity of S on the Rorschach. He found that interpretations range from oppositional tendency to flexibility, to ego strength, to opportunism. His consensus is that all the studies to date lack sufficient validity for any interpretation to be made in regard to definiteness insofar as the individual Rorschach is concerned. One of Murray's concerns was that many studies did not take into account the effect of the total number of responses (R) on S.

Bandura (1954b) found a significant correlation of .51 between S and the number of other responses in the protocol (i.e., R-S). Fonda (1960) suggested that a significant relationship between S and a non-Rorschach variable are usually paralleled by similar relationships between R and that same variable.

The purpose of the present study was to determine the relationship of white space (S) responses to hostility. Hostility responses to the Rorschach were determined by use of Elizur's hostility scoring system. It was hypothesized that a positive correlation would eventuate.

Chapter 2

The Sample

The sample used in the present study consisted of 80 student volunteers (71 undergraduates and 9 graduates) enrolled in classes at Austin Peay State University, Clarksville, Tennessee. The distribution of the subjects with reference to sex and race was as follows: females, 49 white and 8 non-white; males, 19 whites and 4 non-white. The mean age of the subjects was 24 years. The mean educational level was 14 years.

Description of the Instruments

Rorschach (1942) devised a projective technique consisting of a series of 10 ink blots, some of which are achromatic and some chromatic. The instrument is used to provide an integrated pattern of the total personality.

Responses on the Rorschach may be scored or content analyzed. Elizur's hostility scoring system is based on the content of the subject's responses on the Rorschach. The scoring does not make use of location or the determinants of the responses. However, protocol length was taken into account. Elizur's hostility scoring system is defined in Appendix A.

Administration and Scoring

The Rorschach was individually administered to the subjects. Elizur's hostility scoring system was used to determine the subject's hostility level (HL), which was determined by adding all the weights for each subject's protocol. Hostility level percent (HL%), which takes into consideration the effects of R (total number of responses), was determined by dividing HL by R.

Rorschach identified space responses (S) as "those answers in which the white spaces are interpreted rather than the black or colored parts of the figure which surrounds them" (Rorschach 1942, p. 30). These responses were later referred to as primary or main S and distinguished from secondary S in which the white space responses play a more incidental role. Only primary white space responses were considered in the present study.

Chapter 3

RESULTS

A computer analysis, utilizing the Pearson product-moment correlation technique, compared gender, total responses (R), white space responses (S), white space response percent (S%), hostility level (HL), and hostility level percent (HL%). S and HL were correlated .20, which was significant at the .05 level using a one-tailed test. S% was not correlated significantly with HL or HL%. A coefficient of .46 between R and S was significant at the .01 level. Gender and HL was correlated -.33, which was significant at the .01 level.

A multiple regression analysis resulted in a correlation of .51 ($p < .01$) between the combination of gender and R and HL.

Chapter 4

DISCUSSION

The significant correlation between white space responses (S) and hostility level (HL) may have been an artifact of the present project in that there was one very atypical Rorschach protocol with a total of 11 white space responses. The majority of the protocols contained between 0-3 S, whereas only a few contained 4-10 S. Assuming that the relationship between S and HL is valid, the low variability on the S measure would preclude the probability of demonstrating the relationship statistically.

The white space response percent (S%) and hostility level percent (HL%) were determined in order to account for the total number of responses (R), since any significant correlation of S and an external measure (e.g., hostility) are usually paralleled by similar correlations of R and the same measure. It was, therefore, necessary to use S% and HL% to determine whether there is a significant correlation between them and that the relationship is not merely an artifact of the inclusion of S in R. S% and HL% were not significantly correlated. The correlation of .46 ($p < .01$) between S and R supports Bandura's (1954b) research in which he found a significant correlation of .51 between

those same variables.

The significant correlation between gender and HL indicates that males gave more hostile responses than females. Analyzing the data for males and females separately, a correlation coefficient of .626 ($p < .001$) was obtained between HL and R for males. The correlation between HL and R for females did not achieve significance.

A multiple regression analysis of the data resulted in a correlation of .51 ($p < .01$) between the combination of gender and R and HL, thus indicating that the best predictors of hostility on the Rorschach are male gender and R.

In summary, the original hypothesis that white space responses on the Rorschach and hostility are related was not strongly supported by the data. However, other results suggest males verbalize more hostile responses than females, that S and R are significantly correlated, and overall male gender and R are the best predictors of hostility on the Rorschach.

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APPENDIX A

Elizur's Criteria for Hostility Scoring

1. (H) This score is designated as primary when hostility is obviously expressed, and all responses receive a weight of 2.

Examples of (H) responses:

- (1) Expressive Behavior such as animals fighting or squashed bug.
 - (2) Emotions and Attitudes Expressed or Implied such as angry face or stupid-looking animal.
 - (3) Objects of Aggression such as arrow or cannon.
2. (h) This score is designated when hostility is expressed less obviously, or when it is expressed clearly but symbolically. These responses are given a weight of 1.

Examples of (h) responses:

- (1) Implied Feelings and Attitudes to a Lesser Extent such as freak or gossiping woman.
 - (2) Objects which maybe Employed for Aggressive Purposes such as hammer or teeth.
 - (3) Symbolic Responses such as feeling of conflict, or war mask. These responses should be scored conservatively.
 - (4) Double Connotations such as headless man or policeman. These responses include both hostility and anxiety.
3. Neutral or Unscorable Responses are those responses which contain no reflections of hostility as determined by any of the previously mentioned criteria. The responses are given no weight.

Examples of (Neutral) Responses:

- (1) Animal skin
- (2) fish
- (3) X-ray
- (4) map

4. \underline{HL} is determined by adding all the weights for each subject's protocol in order to quantitatively discriminate the low hostility subjects from the high hostility subjects.
5. $\underline{HL\%}$ accounts for the effect of \underline{R} , which is the number of responses or protocol length. This is done by dividing \underline{HL} by \underline{R} for each subject.