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THE RELATIONSHIP OF NEUROTIC STYLES TO RORSCHACH VARIABLE PATTERNS

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ABSTRACT

THE RELATIONSHIP OF NEUROTIC STYLES

TO RORSCHACH VARIABLE PATTERNS

By

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The present study was designed to assess the relationship between Shapiro's Neurotic Styles and Rorschach variable patterns. The sample consisted of 42 undergraduate subjects whose two raters on the Neurotic Styles Peer Rating form had agreed on neurotic style classification. The Rorschach was given to each subject. A list of Rorschach variables hypothesized to be associated with each neurotic style was compiled. For each subject four Rorschach scores were determined indicating the percentage of obsessive compulsive, paranoid, hysteric and impulsive indicators represented by his record. T-test analyses were then carried out to test 1) whether subjects characterized by a particular style would demonstrate a higher percentage of indicators for that style than for the three remaining styles and 2) whether those demonstrating a particular style would show a higher percentage of indicators for each of the other styles. These hypotheses were not supported by the data.

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INTRODUCTION

Historically the fields of personality and cognition have followed radically different paths of study. The investigation of personality particularly psychoanalytic theory took place largely in the clinical setting, its theory so closely linked to the clinical situation that it was difficult to study concepts in a more controlled environment. In contrast, cognition was examined in the experimental laboratory context. Furthermore it was assumed that each could be adequately investigated in isolation, since personality involved the study of individual differences and cognition was presumed to develop uniformly in all persons (Klein, 1970).

Formulation of the concept of cognitive styles represented a move toward the integration of these heretofore alien disciplines, the result being a more comprehensive understanding of human functioning. This concept emerged out of a dissatisfaction with existing perceptual research; its failure to account for a wide range of individual differences, coupled with the rising influence of Hartmann's (1958) ego psychological theory. Theory resulting from this integration proposed and investigation corroborated that people demonstrate consistent styles of perceiving that

are remarkably stable across a variety of cognitive tasks and over long periods of time. These pervasive modes of functioning were labeled cognitive styles (Klein, 1970).

Several theories of cognitive styles have been proposed each with a somewhat different emphasis. The focus of this research is on Shapiro's theory of neurotic styles (1965). Shapiro hypothesizes an interesting link between cognitive structure and neurosis thus extending our understanding of functioning beyond that of cognition and personality development into the realm of psychopathology. He contends that this conceptualization explains two phenomena which he feels have been inadequately accounted for by psychoanalytic theory 1) development of character and 2) choice of neurosis. While other theories of cognitive styles have arisen from and been corroborated by empirical research, Shapiro's theory of neurotic styles has received little of this treatment. It is therefore the goal of this study to begin such investigation.

The New Look Movement in Perception

The gradual integration of the fields of perception and personality began in the mid 1940's. Until this time Gestalt theory had been the theoretical orientation guiding perceptual research. The assumption of the Gestalt point of view was that perception was a self-contained system which was capable of communicating to the individual an accurate transcription of reality. However, there

was a growing dissatisfaction with the ability of these laws and principles to account for the individual differences in perception. These differences could not it appeared be accounted for simply through error (Klein, 1970).

Out of this sense of dissatisfaction emerged the New Look movement of perceptual investigation. The New Look represented an attempt to view perception from an organismic perspective. These psychologists felt that the Gestaltists had failed to consider the creativity and activity of the organism (Bruner and Postman, 1948; Klein and Schlesinger, 1949), the influence of past and future expectancies (Cantril, 1948) and other motivational aspects of behavior (Krech, 1949).

Heavily influenced by classical psychoanalytic theory, the New Look psychologists saw the individual as one whose primary motive for behavior is need reduction i.e. the satisfaction of aggressive and libidinal drives and their derivatives. As one form of human behavior, perception was then viewed as an expression of the individual's direction, purpose and motives. Therefore they hypothesized, individual differences in perception are attributable to differences in the motivational state of the organism.

A number of studies were then undertaken in an attempt to compensate for the shortcomings of Gestalt research and to gain empirical support for the organismic hypothesis.

The most notable of these was a series carried out by Bruner and his colleagues (Bruner and Goodman, 1947; Bruner and Postman, 1947; Bruner and Postman, 1948). These studies corroborated the hypothesis that needs and values significantly altered perception. However the way in which perception was changed was more difficult to discern. While in one experiment they found that valued objects were judged to be significantly larger than their actual size, in a second investigation subjects judged valued objects to be smaller than they actually were. In an attempt to reconcile these contradictions they concluded that the direction and magnitude of accentuation is a function of the particular need or value involved.

In a series of two critiques of the New Look research Klein and his colleagues levelled two major criticisms (Klein and Schlesinger, 1949; Klein, Schlesinger & Meister, 1951) 1) that in concluding that perceptual distortion was a function of the value and need involved they had just as the Gestaltists, focused on the process and neglected the importance of the individual and 2) that in their effort to establish the distorting effects of motives on perception, they proposed no mechanism which would account for the accuracy perception generally affords. In an attempt to formulate a more comprehensive theory the concept of cognitive controls emerged.

Ego Psychology

Klein and his colleagues felt that classic psychoanalytic theory had failed to provide an adequate basis for the understanding of perceptual phenomena. He therefore turned to Hartmann's (1958) theory of ego psychology which seemed to offer a broader basis for human motivation.

Hartmann (1958) presented the individual as essentially a social being whose primary concern is adaptation to the environment. While much of the individual's behavior is concerned with the satisfaction of need, underlying this, is a primary motive of "maintaining equilibrium between the individual and the average expectable environment" (Hartmann, 1958, p. 25). Thus an individual is motivated by efforts at adequacy and control rather than simply aggressive and libidinal drives.

In contrast to classic psychoanalytic theory the primary focus of development is on the ego rather than the id. Hartmann proposed that ego and id differentiate out of a common matrix. Furthermore he suggests that there are rudimentary elements of the ego called "ego apparatuses of primary autonomy" (e.g. perception, intention, object comprehension, thinking, language, motor development) which exist at birth, function outside the realm of conflict and follow an innately determined maturational path. Development occurs as these apparatuses progressively mature, differentiate and reintegrate into a complex organizing structure which guides the individual in

his adaptive endeavor. The form this organization takes and therefore the manner in which adaptation occurs is dependent on the innate capacity and maturational level of the autonomous ego apparatuses and their interplay with intrapsychic conflicts and the social environment.

> But we have in this conception and psychoanalysis did not have it before a biologically rooted nucleus of psychological structure that influences characteristic form tendencies of both adaptive and defensive functioning from the beginning, a nucleus around which other forces and influences (such as social environment and intrapsychic conflict) assert themselves and accumulate (Shapiro, 1965, p. 10).

Congitive Controls

Klein's concept of cognitive controls represents an attempt to define and articulate the organizing structures described by Hartmann (1958).

> Cognitive controls refer to precisely those processes which Hartmann has termed conflict-free. Specifically they describe the characteristic ways in which reality-adaptive events have become organized in the person; each constitutes for the person his optimal adaptational level in the particular class of environmental situations to which it is suited (Gardner, Holzman, Klein, Linton & Spence, 1959, p. 10).

These organizing structures exist at birth in an undifferentiated state. Through the interplay of the autonomous ego functions with social forces and intrapsychic conflict these structures are differentiated and consolidated into stable "cognitive controls" which provide the individual with certain consistent and reliable ways of experiencing and responding to external and internal

events. While these adaptive strategies differ from one person to the next based on differences in innate capacities and developmental history they are equally effective in promoting environmental adaptation.

In addition to providing structural stability and consistency to the individual, cognitive controls also serve a drive discharge delaying function, much as defenses do. They therefore provide a vehicle for drive expression in the context of adaptive requirements. Thus cognitive controls limit the degree to which need states can distort reality, allowing distortion only to the extent to which it services adaptation (Gardner et al., 1959).

In the course of innumerable empirical studies Klein, Gardner and their colleagues have identified five cognitive controls: 1) Levelling-Sharpening (Holzman and Klein, 1954; Holzman, 1954), 2) Focussing-Scanning (Schlesinger, 1954; Holzman, 1966; Gardner and Long, 1962), 3) Constricted-Flexible Control (Loomis and Moskowitz, 1958; Smith and Klein, 1953), 4) Equivalence Range (Gardner, 1953) and 5) Tolerance for Unrealistic Experiences (Klein, Gardner and Schlesinger, 1962). Further research has demonstrated that these structures are consistent across tasks and stable over time (Gardner, Jackson & Messick, 1960), lending empirical support to this structural model.

Neurotic Styles

The theory of neurotic styles was formulated largely on the basis of clinical observation rather than on experimental research. As Shapiro (1965) became more familiarized with the works of Hartmann, Klein and Gardner, he began to reevaluate the phenomena he had witnessed in the clinical setting as an assessor and therapist.

In testing Shapiro found that, particularly in the use of the Rorschach the way a person thinks and perceives is used to make inferences about character traits, diagnosis and defense mechanisms. Furthermore slight variations in this style is often suggestive of adaptive traits as well. He therefore reasoned that this general style of thinking (i.e. cognitive style) might be viewed as a psychological structure in its own right "a matrix from which various traits, symptoms and defense mechanisms crystallized" (Shapiro, 1965, p. 2).

Shapiro proposes that there is an identifiable mode of thinking, a cognitive style, associated with each neurotic condition which is a manifestation not of the neurosis itself but of the individual's cognitive structure formed in the course of normal development. The individual's cognitive style serves as a matrix from which his adaptive, traits, defenses and symptoms evolve. It is therefore a significant factor in determining the form a symptom might take and thus the type of neurosis one might develop. Shapiro concludes that this

conceptualization accounts for two phenomena which have never been adequately explained by psychoanalysis 1) development of character (here referred to as cognitive style) and 2) choice of neurosis.

Shapiro's formulation of neurotic styles is not simply a theoretical statement. It also articulates in some detail four neurotic styles.

Following is a description of each of the four neurotic styles described by Shapiro (1965): obsessive-compulsive, paranoid, hysteric and impulsive.

Obsessive-Compulsive Style

The most outstanding characteristic of the obsessive compulsive is his rigidity. "Behaviorally it may refer to a stiff body posture, stilted social manner or a tendency to continue in a course of action beyond its usefulness"(p. 24). Above all however it refers to a style of thinking. The obsessive-compulsive lacks the ability to shift from sharply focussed attention to more relaxed impressionistic cognition. He rarely gets hunches or is struck by things. In fact impressionistic experiences are viewed as a discomforting distraction which interferes with his intense concentration.

This mode of functioning clearly provides the obsessive compulsive with superior technical facility and an impressive capacity for concentration in attempting to solve a problem or engage in intellectual pursuit. At

times however the narrow attentional scope prevents him from maintaining a proper perspective on a situation. Facts tend to be viewed in isolation gaining little sense of their integration or emotional impact.

The obsessive compulsive's life is centered around work. He is continuously involved in some goal-oriented task which he pursues with deliberateness. Work is viewed as an obligation to some higher authority which transcends his own needs and desires. The obsessive compulsive is thus continually plagued and guided by feelings of what he should be doing. While this pressure is self imposed, the obsessive compulsive's subjective experience is one of continued stress and strain about which he frequently complains. Despite this when such structure is eliminated the individual with an obsessive compulsive style becomes quite anxious and immediately seeks out another task to pursue.

Such effortfulness and deliberateness is often expected in a work situation. However, for the obsessive-compulsive it extends into all areas of life, even those which to others seem fun. He attempts to direct not only actions but also wants and emotions leaving little room for whim, spontaneity or affective expression. Consequently, relaxing is difficult, and doing things on impulse or simply for fun is rare.

The decision making process is similarly difficult for the obsessive compulsive. Typically his feelings are

remarkably well balanced between alternatives. Essentially cut off from his own desires he attempts to invoke some rule or principle which will provide him with a "right" answer. Therefore decisions are usually made abruptly with a lack of internal certainty. He then defends against this tenuousness through dogmatic adherence to his decision, disregarding all facts which might instill doubt.

In sum, to others the obsessive compulsive is a rational, controlled competent individual who has difficulty relaxing and is ill at ease in situations until he has figured out the appropriate role expectations.

Paranoid Style

The cognition of the paranoid is characterized by rigidity, intensity and hyperalertness. He tends to have preconceived ideas which are quite rigid and resistant to change. Unlike the obsessive-compulsive who focusses in on small details of the environment, the paranoid is constantly scanning and searching for clues to support his suspicions and ideas. He is thus acutely aware of all aspects of the external world and shows a tendency and need to integrate them into his framework. He therefore does not disregard facts which do not fit as does the obsessive, but idiosyncratically interprets them. These non-confirmatory facts are viewed as appearance, masking some more significant underlying meaning. Thus while exceedingly accurate in perception the paranoid is at times

amiss in judgment.

It is this type of cognition which lends itself to the development of projection as a defense. "The projective process is completed and a projection is said to exist when the paranoid person, in a certain state of biased expectancy vis à vis the external world, turns his attention toward the object and seizes on a clue, the significance of which convinces him of some motive, intention, or the like and thereby crystallizes his biased expectancy in some concrete shape" (p. 70).

The paranoid individual is in a constant state of mobilization always aware of the possibility of some danger or threat. The aim however is not to avoid threat but to avoid vulnerability to it. Thus there is a tendency to anticipate the unexpected and integrate it into his preexisting framework.

One of the primary sources of threat is that of authority. The paranoid is "continuously occupied and concerned about the threat of being subjected to some external control or infringement of will" (p. 82). He is therefore acutely aware of power and rank and is quite sensitive to the evaluation of authority figures, particularly their rejection. His reaction is typically one of shame or arrogance. Authority however is not the only source of interpersonal discomfort. The paranoid tends to be generally suspicious of others. This results in remaining distant from people, being cautious and not feeling

comfortable enough to relax and be spontaneous.

The result of this state of mobilization is that "all action is purposeful, directed toward an aim with an intensity close to what is normally reserved for emergency (p. 76). He never does anything whimsically, impulsively, for its immediate appeal or for its own sake" (p. 81). Activities such as walking, talking and smiling which are generally viewed as expressive or automatic are kept under voluntary control. As a result there is a general restriction of affective experience and the area experienced as "self." The paranoid rarely laughs, is uninterested in art and aesthetics and regards tenderness and sentiment as effeminate or weak. As well bodily sensual experience is constricted; sex becomes quite mechanical and sensual pleasure limited. Furthermore there is a narrowing of interests in general. Leisure time is usually devoted to mechanical devices which the paranoid shows an unusual fascination and respect for.

Hysterical Style

The hallmark of the hysteric is his impressionistic cognitive style. Cognition is global, diffuse and lacking in sharp detail. This appears to be associated with an impairment in the capacity to actively organize, refine and integrate mental contents. While the obsessive and paranoid search out detail the hysteric is passively struck by things. Thus he tends to respond to those aspects of

the environment which are most vivid, colorful and emotionally salient, the subjective experience of the world being one of color and excitement but lacking in substance or fact. When asked to describe a person or object he is more likely to answer with general impressions than descriptive detail.

Repression is facilitated by this style in two ways; 9) the vagueness of the original cognition will result in less concrete facts being associated with it and 2) the memory recall process will be similarly diffuse. Consequently the general absence of focussed attention facilitates the individual not bringing into clear focus that which may be experienced as uncomfortable.

This cognitive style pervades not only the defensive structure but has far reaching intellectual, affective and behavioral effects. The hysteric is easily distractible and lacks the concentration and attention necessary for intellectual pursuits. Thus although he may possess more than adequate intellectual potential he lacks the reflectiveness and perseverance necessary for sustained intellecutal activity.

The hysteric consequently lives in a non factual world where emotions and whim rather than reason serve as primary guides. Judgments are therefore thought to be questionable, rarely thought out or based on concrete knowledge or facts. Highly suggestible, the hysteric is likely to follow the newest fad or trend. Furthermore

he tends to fall in an out of love frequently, easily infatuated and just as easily repulsed.

Not yet mentioned but perhaps the most striking and frequently mentioned characteristic of the hysteric is his emotional lability. The hysteric tends to change moods with little provocation and is given to intense emotional outbursts. While one might expect that the experience of such vivid emotions is associated with a strong sense of self, this is not the case with the hysteric. These outbursts tend to be seen by him as something that comes over him rather than a reflection of his true feelings. He is therefore often quite surprised that others take them seriously. In general the hysteric appears to have little sense of the impact his actions have on others.

Impulsive Style

Cognition of the impulsive individual tends to be passive and concrete, captured by whim and demonstrating a lack of active integration. The result of such a style is an impairment of such processes as planning, objectivity, concentration and reflectiveness.

Associated with this type of cognition is also an impairment in normal motivation. Actions tend to lack a sense of deliberateness and intention. Consequently judgment in the impulsive is often said to be poor. He tends to rush into things with little consideration for the consequences and alternatives. As with all actions it

tends to be quickly executed and unplanned. In general he acts consistently on whim. When asked why he has performed an act the impulsive's reply is frequently, "I couldn't help it. I just did it. I don't know why." The subjective experience is of having performed "action which does not feel completely deliberate or fully intended" (p. 136).

The impulsive is also quite notably lacking in active aims and interests which when present provides perspective, continuity and direction to current actions. The impulsive, however, tends to have no long range personal or professional goals. Furthermore he is uninterested in cultural, intellectual, political or ideological matters. Love and friendship relationships tend to be superficial and there is little investment in family matters. Lacking an integrated structure of aims and interests, immediate gains, satisfactions and frustrations become primary.

While clearly impaired, integrative processes are not totally absent. "The individual is neither overwhelmed by his impulses nor acts them out chaotically without consideration for reality" (p. 143). Rather this type of cognition facilitates effective completion of short range immediate aims. The impulsive is not hampered by rumination over possible alternatives or consequences. He acts quickly and competently in tasks which service his immediate needs. Furthermore, he shows a remarkable degree of self confidence and a freedom from inhibition and

anxiety. As well the impulsive is known for his sociability. He tends to be seen by others as charming, entertaining, witty, engaging and playful. However this social facility is often used as a way of manipulating people to service his needs rather than in developing any long-standing relationships.

The Rorschach

The Rorschach lends itself quite well to the investigation of neurotic styles. It provides an objective, valid and reliable method for assessing the formal characteristics of thought, affect and behavior. Furthermore the Rorschach was one of the primary sources of clinical data used by Shapiro (1965) in formulating his theory. The investigator therefore decided to use it as one of her primary research instruments.

Following is a review of the literature of the Rorschach variables being used in this study.

Response Number (R)

R is the total number of responses given to the ten Rorschach plates. It is dependent on both the ability to look at an object from several different perspectives and on the wealth of associations (Rapaport, Gill and Schafer, 1968). Thus it is said to be related to intelligence level and range of interests (Beck and Molish, 1967; Rapaport et al., 1968). Those of superior intelligence produce significantly greater numbers of responses

than those within the normal range, while the feebleminded produce significantly less responses than both of the preceding groups (Exner, 1974).

Affective factors, however, also play a significant role in determining R, with depression and constriction reducing and elation increasing R production (Beck, 1945; Exner, 1974; Rapaport et al., 1968; Rorschach, 1942). As well high R may be indicative of overambitiousness rather than simply intellecutal excellence, the overachiever producing quantitatively equal but qualitatively poorer responses (Rapaport et al., 1968).

In addition, studies of pathological groups have found high R to be associated with mania (Rorschach, 1942), overideational preschizophrenics, mixed neurotics and obsessive compulsives. In contrast, low R is correlated with neurotic and psychotic depressives, simple schizophrenics, paranoids (Rapaport et al., 1968), and those with organic brain damage (Exner, 1974).

Location (W, D, Dd)

Location scores W, D, Dd reveal the way in which the individual approaches the world. W indicates a global, theoretical approach, D a practical concrete approach and Dd an approach attuned to the finer, sometimes obscure details of the environment (Beck, 1945).

The majority of research on location scores has focussed on W. Rorschach (1942) postulated that W was

related to organizing ability and thus intellecual functioning. However, investigations have produced conflicting evidence regarding the intellect hypothesis, some studies demonstrating a positive correlation between Ia and W (Abrams, 1955; Armitage, Greenberg, Pearl, Berger & Daston, 1955) while others finding no such relationship (McCandles, 1949; Wittenborn, 1950).

Exner (1974) attributes these contradictory results to the failure to account for qualitative differences in W. Beck (1945) identifies two types of W, the organized W in which the analysis-synthesis process is in evidence and the lazy W which is characterized by easy and diffuse perception. Other investigators have shown that when the quality of W is considered, a positive correlation is found between organized W and intellect (Friedman, 1952), the lazy W reflecting limited intellectual potential or below capacity functioning due to illness, affective factors or defensive guardedness (Beck, 1945).

Little research has been conducted investigating D and Dd alone, Beck indicating that D represents reactivity to the obvious, Dd-attention to the minute.

While there is some value in interpreting location scores in isolation from each other, their interpretive significance lies primarily in their proportional occurrence to each other in a record. Adherence to the expected proportion W = 19.81%, D = 71.94%, Dd = 8.23%, reflects adaptive flexibility in coping with the environment,

aware of the practical reality demands (D), and yet cognizant of global implications (W) and subtle distinctions (Dd) when necessary (Beck, 1945; Exner, 1974).

For those who depart from these expectancies, the direction to which the proportion shifts, reveals important differences in style of approach to the world. Evidence shows that an emphasis on W reflects a tendency to be overly theoretical, intellecutal and abstract at the expense of more mundane considerations. In contrast overemphasis on D indicates over concern with the practical and concrete often reflecting a reluctance to test out intellectual resources (Exner, 1974). And finally Dd overproduction reveals a tendency to pursue what others disregard. Valuing precision and exactness, the Dd emphasizer has difficulty coping with the ambiguity and global impact of the environment (Beck, 1945).

Furthermore investigation of pathological groups has found high incidence of D in depressives, Dd in obsessives and W in conditions exhibiting moderate elation, the number of W's in the elated decreasing as attention becomes more flighty (Beck, 1945).

Organization (Z)

The Z organizational score initially conceptualized by Beck (1933) represents the tendency to organize separate parts of an inkblot stimulus into a meaningful percept. The Beck Z score consists of a weighted score assigned

according to type or organization and the complexity of the location used and is purported to reflect the ability to organize, integrate and abstract (Beck, 1945; Hertz, 1960).

Thus Beck Z is generally conceived of as an indication of intelligence showing high correlations with standard IQ tests (Sisson and Taulbee, 1955; Wishner, 1948), particularly the verbal reasoning, picture completion and digit span subtests of the WISC (Wishner, 1948), showing low or negative correlations with other subtests. Furthermore, Hertz and Beck concur that the Z score reflects more than simply intellectual ability, also indicating the drive to achieve and the creative and efficient use of intellect.

Consequently while intelligence is a prerequisite for Z score, high intelligence does not necessarily result in High Z. Z has been found to vary with response style (Exner, 1974). It is higher in manics than schizophrenics (Schmidt and Fonda, 1953), low in depressed patients (Hertz, 1948; Varvel, 1941) and high in patients prone to projection (Beck, 1952).

Movement (M)

Rorschach (1942) hypothesized that M, the perception of movement in the inanimate stimulus blot, is an indication of introversiveness. It reflects the tendency to function in the intellectual sphere and to be more

oriented toward intrapsychic living than living in the external world. Thus Rorschach viewed the M producer as one who because of inhibition engages in adaptive wish-fulfilling mental activity instead of overt behavior.

Beck (1945, 1967), Hertz (1951) and Klopfer et al. (1954) concur with Rorschach's hypothesis that M represents an internalization process reflecting an attempt to deal with external reality demands through internal thought processes rather than through action i.e. through fantasy and dreams. Much research has corroborated the positive relationship between M production and internal activity. They have demonstrated a positive correlation between M and such processes as daydreaming (Page, 1957), dream and sleep deprivation (Page, 1957), fantasy (Dana, 1968) and intellect (Hersh, 1962).

Although Piotrowski (1957) agress with Beck, Hertz and Klopfer that M represents internalized activity, in contrast to the above theorists he feels that it is also positively correlated with overt behavior, reflecting the attitude one assumes in relationship with others. Studies attempting to investigate the presence or absence of kinesthesia with M have reported conflicting results. Some have shown a positive relationship between motor inhibition and M thus supporting Rorschach's position (Klein and Schlesinger, 1951; Singer, 1960), while others have corroborated Piotrowski's view (Cooper and Castron, 1970).

Rapaport (1968) has advanced a theory which appears

to effectively integrate these apparently contradictory points of view. He postulates that M is indicative of response delay rather than a tendency towards internalization in the form of dreams and fantasies or in overt behavior, the behavior being a product of deliberate and cognitively sophisticated thought processes rather than impulsive action. The internal fantasies appear to function as a means of formulating alternative responses which at times results in adaptive manipulation of the environment while at other times remains internally contained. Whether or not overt activity occurs will depend on how the individual has learned to most effectively deal with external demands and conflicts (Exner, 1974).

Color (C, CF, FC)

A color response is one in which a color other than black, gray or white has played a role in determining a percept. There are three basic types of color responses: 1) Pure Color (C) in which color is the sole determinant, 2) Color-Form (CF) in which color is the primary determinant but some form elements are also involved and 3) Form-Color (FC) where color contributes to the response but is only of equal or secondary importance to the form determinant (Rapaport et al., 1968).

Rorschach (1942) hypothesized that use of color is associated with affect and such characteristics as sensitivity, irritability and impulsiveness. There has been

a great deal of controversy over this relationship. However Exner (1974) appropriately suggests that studies often cited as evidence against the color-affect relationship (Hamlin, Stone & Moskowitz, 1955; Keehn, 1954; Siipola, 1950) have in fact been investigations of the color-shock hypothesis. In studies that have more directly researched the color-affect link, validating evidence has been reported (Crumpton, 1956; Forsyth, 1959; Wallen, 1948).

The rationale for this hypothesis has been extensively studied. The findings have demonstrated that color perception is essentially a passive (Schachtel, 1943) and immediate (Rickers-Ovsiankina, 1943) process, requiring minimal cognitive articulation and organization activity and a relaxation of tension discharge delaying capacity (Rapaport et al., 1968). In a 1960 review Shapiro reports supporting data showing that color has the most signfiicance in all cases in which organizing capacity has not yet been achieved or has been impaired.

The following hypotheses have been proposed for each of the three basic types of color responses. Production of Pure C is associated with blunted affect, impulsive actions and uncontrolled emotional outbursts (Beck, 1945; Klopfer et al., 1954; Rapaport et al., 1968; Rorschach, 1942; Shapiro, 1960). Underlying the C response is the temporary relaxation, immobilization or absence of integrative and tension discharge delaying functions (Shapiro, 1960).

CF is associated with both vivid and labile emotionality or impulsive action with only minimal regard for reality considerations. In this case there is also an impairment of organizing and delay functions but to a lesser extend than with pure C response (Shapiro, 1960).

Finally the FC response is one in which the emotional response is made but it is integrated with reality demands resulting in good judgment, planning and empathic rapport with others. Underlying this is an effective delay of discharge which allows organization and articulation of form determined percept in which color is used to facilitate percept identification rather than impede it as is the case with C and CF responses (Shapiro, 1969).

C+CF:FC

C+CF:FC is the ratio of color dominated to form dominated chromatic responses. The expected proportion in an average record is 1:2 (Rapaport, et al., 1968).

The predominance of FC over C+CF is an index of the degree to which an individual is able to control impulsive action and emotionality. The person is capable of responding appropriately with affect and action (Klopfer et al., 1954). Therefore it indicates capacity for adaptive rapport with others (Beck, 1945). However, when FC is too numerous one would expect an overly compliant individual who is primarily concerned with pleasing others and has difficulty asserting his own needs (Rappaport et al., 1968).

When C+CF is predominant over FC there is weak control

over emotionality. The individual tends to be characterized by affective lability, impulsivity, irritability, sensitivity and suggestibility (Beck, 1945). He also tends to know others only in a superficial way, be self-centered, demanding and lack social responsibility. Thus he has difficulty developing or maintaining deep friendships (Phillips and Smith, 1953).

Sum C

Sum C is the total amount of chromatic color used in a Rorschach protocol. In this sum a pure C response merits 1.5 units, a CF response 1 unit and an FC response .5 units. This sum represents the emotional reactivity of the individual and the extent to which the individual's affective energy is available for response to the environment (Beck, 1945; Klopfer et al., 1954; Rapaport et al., 1968). The greater the total C the more capable the individual is of feeling contact with the world (Beck and Molish, 1967).

A higher than average sum C however would indicate more emotional reactivity and available affective energy than is available to most other people. Thus it may reflect normal impulsiveness, hysterical affective lability or preschizophrenic dilation. Those records which show a low sum C (less than 3) reflect a suppression of affect, shyness, tense alertness and inhibition which is characteristically found in depressives, prepsychotics and schizophrenics (Rappaport et al., 1968).

Experience Balance (M:C)

The experience balance represents the ratio of movement responses to the sum of weighted chomatic color responses assigning .5 units to FC, 1 to each CF and 1.5 to each C (Rorschach, 1942).

Rorschach (1942) hypothesized that the experience balance represents a constitutional response tendency which reflects an introversive (M>C), extratensive (M<C) balance. He defined the introversive individual as one who tends to get his needs gratified primarily through inner resources. He experiences the world more in a cognitive than an affective manner and is characterized by individualized intelligence, creative ability, significant inner life and stable affective and motor reactions.

The extratensive person, in contrast, relies on the interactions with the enviornment for need satisfaction. He tends to be characterized by stereotyped intelligence, reproductive rather than creative ability, outward life orientation and labile affectivity and motility.

Rorschach (1942) explicitly states that this dimension does not correspond to the Jungian concept of introversion-extraversion. However, there has been considerable controversy among major Rorschach theorists as to whether these concepts are essentially the same. Klopfer et al. (1954) sets forth theoretical arguments supporting their equality while Beck (1945) and Piotrowski (1957) support Rorschach's original position. Exner (1974) concurs with

them that whereas the Jungian introvert is generally conceptualized as withdrawn and isolated from others, Rorschach's notion of introversiveness focusses on use of resources and the manner in which the world is experienced but does not necessarily imply behavioral correlates.

This controversy has given rise to a great deal of research exploring the personality correlates of the introversive and extratensive balance. Singer (1960) and Molish (1967) both cite evidence indicating that introversives exhibit more fantasy activity, form associations more rapidly and have a higher general intelligence than extratensives. In contrast, the extratensive individual shows more autonomic arousal, rapidity of movement and has a low threshold for affective response. The research further demonstrates no correlation between introversion as measured by the experience balance and questionnaires measuring social introversion thus lending support to Rorschach's original hypothesis. On the basis of these studies Exner (1974) concludes that the experience balance provides an index of whether the individual relies on inner life and the associated delays or is prone to affective discharge.

Among pathological groups M prevalence occurs in acute schizophrenics, overideational preschizophrenics and obsessive compulsives, while color is prevalent in hysterical, depressive and some types of schizophrenic disorders (Rapaport et al., 1968).

Form (F%)

Pure form responses are those which are determined solely by the form quality of the blot. Rorschach (1942) hypothesized that F is an index of concentration-attention processes. Other theorists have expanded this concept. Rapaport et al. (1968) proposes that pure form reflects the capacity for formal logical reasoning. It is uninfluenced by affective and unconscious factors and reflects the capacity for delay of impulse discharge.

While Klopfer et al. (1954) and Beck (1945) concur in the affect-delay proposition, in a more conservative formulation they suggest that F may occur in the presence of and may even be promoted by affect or conflict which is controlled by deliberate and conscious thought processes. In a review Exner (1974) cites research indicating that experimental data appears to support the Klopfer-Beck hypothesis. Studies demonstrate that those in a defensive position i.e. influenced by conflict, show a higher proportion of pure F responses. Further in those conditions where impulse is impaired as in characterological disorders and organic conditions pure F is lowered (Buhler & LeFever, 1947; Hafner, 1958).

The expected F% is 60-80%. This reflects a balance in delay of impulse expression. Thus thinking is essentially in conformity with reality demands without sacrificing spontaneity. Therefore F% is greatest among those groups characterized by rigidity, compulsiveness or inhibition. Among pathological groups this includes paranoid schizophrenics, simple schizophrenics, depressives and

obsessive compulsives. Low F% is found in those individuals characterized by impulsivity particularly hysterics, acute schizophrenics and psychopaths (Rapaport et al., 1968).

Form Quality (F+%)

F+% is the measure of the form quality of a percept produced in response to a Rorschach blot. According to Beck (1968) Rorschach hypothesized four basic components underlying the F+ response: 1) the ability to concentrate 2) availability of clear memory images into consciousness and 4) the ability to select from among those images the one most fitting for the stimulus.

F+% represents the degree to which the subject is attentive to or departs from the reality represented in the blot and is therefore purported to be a measure of ego strength (Korchin, 1960). In support of this hypothesis research has shown that F+% is a good indication of the capacity for effectively dealing with stress (Exner, 1974) and furthermore tends to increase as a result of therapeutic change (Beck, 1967; Piotrowski, 1939).

Beck (1945) has also proposed the F+% is a measure of intellect. Whereas F+% has been found to be significantly correlated with mental retardation (Beck, 1932, Klopfer and Kelley, 1942) there is no evidence to indicate that it is an effective predictor of intellect in the normal range (Exner, 1974).

The low F+% represents the degree to which a percept has been distorted by the influence of affective and unconscious factors and reflects a failure in the delay of

impulse gratification (Beck, 1945; Korchin, 1960; Rapaport et al., 1968). A consistent correlation has been demonstrated between low F+% (F+<60%) and severe psychopathology (Beck and Rickers-Ovsiankina, 1938); Beck and Molish, 1967). This is found primarily in schizophrenics but may be present in neurathenics and preschizophrenics (Rapaport et al., 1968).

As with the F% a high F+% indicates decreased spontaneity and an inhibition of fantasy and affective processes (Korchin, 1960). This may reflect underlying control which has become rigid and overly accurate resulting in meagerness of productivity and rigid thinking. This often is characteristic of paranoid, depressive and obsessive conditions (Rapaport et al., 1968).

Vista (V)

When an individual uses vista (V) he is using the shading to give the blot a structured three dimensional effect. He sees the material as having depth and perspective with some objects closer and others farther away.

Rorschach (1942) gave little attention to the use of vista proposing simply that it was related to feelings of inadequacy. Therefore the interpretation of this response has been elaborated upon by other Rorschach theorists. Beck (1945) suggested that V represents an introspective, intrapunitive process which results form feelings of inadequacy and is associated with a dysphoric mood. In a somewhat more adaptive view Klopfer and Kelley (1942) hypothesized that V reflects an attempt to handle anxiety through introspection

by creating distance from oneself in order to gain perspective. They view it as a stabilizing influence in that it allows the individual to tolerate anxiety.

While initially Beck (1945) tended to see V as a pathological sign, in a later work (Beck and Molish, 1967) he has suggested that in some cases it may indicate more adaptive functioning, specifically an appreciation for spatial relationships and an interpersonal sensitivity.

Unlike many of the other Rorschach variables very little empirical data has been gathered to validate hypotheses relating to V. However, in a series of studies conducted by Exner (1974) evidence indicates that the vista response does relate to introspective activity which may or may not be associated with subjective pain and depression, essentially supporting both Beck and Klopfer hypotheses.

Diffuse Shading (Y)

The scoring of shading is the most refined of all the Rorschach variables in that it indicates whether shading reflects a response generated by textural quality, vista effect or diffuseness (Rapaport et al., 1968). While all systematizers have included some way of scoring diffuse shading, the symbols and the scoring criteria utilized differ. The Beck system, that used in this study, designates Y to indicate this variable.

There is general agreement among Rorschach theorists that Y is an indication of anxiety. Klopfer et al. (1954) suggests that diffuse shading reflects free floating anxiety which further indicates a situation which the individual has

not built up adequate defenses to deal with. Elaborating on this concept Rapaport et al. (1968) suggest that the degree to which form is integrated into a response using shading indicates how adequately the individual is handling the anxiety. Pure Y refers to free floating anxiety. However when F is secondary to Y anxiety is associated with a specific situation or idea and when form predominates anxiety is relatively well controlled or displaced into body symptomatology.

Beck (1945) in a somewhat different formulation suggests that Y is indicative of inactivity or passivity which the individual uses to defend against affective expression. Furthermore this is associated with a dysphoric mood.

There have been numerous studies investigating the shading-anxiety and shading-passivity hypotheses. While research has consistently supported the passivity hypothesis, more equivocal results have been reported regarding the relationship between shading and anxiety. In a review Exner (1974) suggests that this is largely due to the use of different scoring criteria and the failure to differentiate different types of anxiety. He further proceeds to give a rather comprehensive formulation of the meaning of shading production. He concludes that Y reflects psychological helplessness which may or may not be accompanied by anxiety but is associated with some form of painful affect. The degree to which an individual is able to cope with this experience is demonstrated in the degree to which form is also integrated into the response. In those cases where form is dominant the experience is controlled and

overt response is delayed and organized. However when form is secondary or absent there is an increased probability of direct expression and an associated feeling of being overwhelmed.

Number of Content Categories

The number of content categories manifested in a Rorschach protocol has been consistently demonstrated to reflect high intelligence (Beck, 1945; Pauker, 1963) and a wide breadth of life interests (Piotrowski, 1957; Schafer, 1954). A high number of categories, however, not only indicates intellectual capacity but also the degree to which the individual has actively sought to develop it through formal education, advanced training and life experiences (Beck, 1945).

Conversely, the use of only a small number of categories has been shown to be correlated with low intellectual endowment (Beck, 1945; Piotrowski, 1957; Schachtel, 1966; Schafer, 1954). However, it may also indicate an inefficiency of functioning. This may be the result of a passive overconventional approach to life, anxiety, inhibition, repression, psychomotor retardation or psychotic blocking (Beck, 1945; Hertz, 1949; Rapaport et al., 1968).

Among psychopathological groups the lowest range is found among the feebleminded, organic brain syndrome, the severely depressed (Beck, 1945) and schizophrenics (Piotrowski and Bricklin, 1961).

Animal Content (A%)

A% represents the proportion of responses which contain percepts of animals or parts of animals. The animal is the easiest and therefore the most prevalently produced percept (Beck, 1945; Exner, 1974; Rapaport et al., 1968). The mean production is 46.87%, the normal ranging from 30-65%.

Within the average range A% is viewed as a measure of adaptive thinking (Beck and Molish, 1967). It reflects the ability to intellectually recognize the common and mundane (Beck, 1945) and to react in a routine and predictable manner (Exner, 1974). Furthermore, when not produced to excess it represents the ability to free oneself of stereotyped perceptual activity to produce more complex, articulated and creative responses (Beck, 1945; Beck and Molish, 1967).

There is general agreement that overproduction of A reflects stereotypic thinking and a narrowness of interests (Beck, 1945; Beck and Molish, 1967; Ezner, 1974; Klopfer et al., 1954; Rapaport et al., 1968). Therefore one would expect a high A% in those conditions which interfere with complex articulation and integration of percepts. This would include low intelligence, compulsive rigidity, depression (Rapaport et al., 1968), simple schizophrenia (Exner, 1974) and alcoholism (Rabin, Papania and McMichael, 1954).

An A% below expectancy is indicative of an individual

who tends to see the world in a highly idiosyncratic manner, tending to ignore the mundane. Thus low A% occurs among those individuals characterized by rich intelligence, freedom of impulses (Rapaport et al., 1968), flightiness, disorganized thought particularly in manic and schizophrenics (Exner, 1974).

Popular Response (P)

Rorschach (1942) hypothesized that P reflects the ability to perceive the commonplace in the stimulus features of the blot or more generally to see things according to social convention (Beck and Molish, 1967; Exner, 1974; Klopfer and Kelley, 1968; Rapaport et al., 1968). More specific than A% which focusses on a class of percepts, P score reflects the degree to which an individual produces responses to particular blot areas which are the same as those commonly produced by normal individuals. In the nonpsychiatric population subjects produce an average of 6 P, the normal ranging from 5 to 8.

An overproduction of P reflects an unusually strong emphasis on conforming to the obvious (Exner, 1974) and thus a lack of individuality and freedom of thinking (Rapaport et al., 1968). This may relate to a defensive clinging to conformity to avoid exposing more individualistic percepts particularly in a constricted record. In a rich protocol however it may simply indicate an above average attentiveness to the obvious in the environment (Exner,

1974).

An absence or very low frequency of P indicates an inability to see the world as others do. This often indicates a weakness in ties to reality (Klopfer et al., 1954) and tends to be reflective of severe psychopathology (Exner, 1974; Rapaport et al., 1968).

White Space (S)

Beck (1945) and Rapaport et al. (1968) concur with Rorschach's hypothesis that the use of white space represents an oppositional or negativistic attitude. According to Rapaport, these feelings may be directed inward resulting in doubt or outward manifesting itself as stubborness. Others however have suggested that S reflects independence (Piotrowski, 1957) and self assertiveness (Klopfer et al., 1954). Research has essentially supported both hypotheses. Fonda (1951) reports a positive correlation between S production and oppositional tendencies while in a later review of the literature (Fonda, 1960), he cites evidence indicating a positive relationship between S and productivity, flexibility, ingenuity and self-sufficiency.

At first glance these two former propositions appear contradictory. However, Fonda (1960) in a cogent review and theoretical statement contends that the drive for autonomy underlies both the self assertive and negativistic tendencies and as such is an indication of ego strength. This is further supported by Levy (1955) who concludes that the purpose

of oppositionalism is to ensure the individual's separateness and independence.

Beck and Molish (1967) have furthermore stated that a moderate degree of oppositionalism is not only expected but desired. In a healthy individual it represents a sense of determination and will power. However, when this drive for independence becomes excessive it no longer serves an adaptive purpose. It is then manifested in extreme stubbornness, negativism and rigidity. This is characteristic of the obsessive compulsive, paranoid and schizophrenic conditions. In contrast an underproduction of S indicates a passive dependent orientation in which the individual feels he must placate others through submission and compliance.

STATEMENT OF THE PROBLEM

There is general agreement in the field of cognitive styles that there are identifiable stylistic differences in the way people think, perceive, feel and act. Furthermore, these different styles are consistent within an individual and stable over time (Kagan and Moss, 1963; Klein, 1970; Witkin, Dyk, Faterson, Goodenough and Karp, 1962).

The focus of the present study is Shapiro's (1965) theory of neurotic styles. Shapiro proposes that there is a cognitive style associated with each neurotic condition which is a manifestation, not of a neurosis itself, but of the individual's cognitive structure formed in the course of development. Furthermore one's cognitive style is an important factor in determining the type of neurosis that might be developed.

The theory of neurotic styles has been the subject of little empirical research to date. It is therefore the goal of this study to begin such investigation. The primary objective of this research is to test the existence of a relationship between neurotic styles and Rorschach variable patterns based on hypotheses developed from Shapiro's descriptions of the characteristics of each style.

METHOD

Instruments

The Neurotic Style Peer Rating Form is an instrument developed for this study. It consists of a description of each of the four neurotic styles described by Shapiro (1965); obsessive compulsive, paranoid, hysteric and impulsive (see Appendix). The styles were presented in random fashion to eliminate an ordering effect. The subject was given the following instructions:

> The following pages contain a description of four different styles of human behavior. In the space provided on the last page of this form please rank order these four styles according to how similar each description is to the person who has asked you to fill out this form. Thus write 1 next to the style he is most like, 2 next to the style he is next most like, 3 to the next and 4 to the one he is least like. Please be sure to read through all four descriptions before beginning the ranking.

The assumption underlying the use of this instrument is that a person well acquainted with another is capable of assessing the general way in which he thinks, feels and acts, i.e. his cognitive style.

A pilot study was carried out with Michigan State University undergraduate students to determine whether this instrument was effective in identifying individuals of different styles. Forms were initially distributed to 72

individuals, 28 of whom returned the questionnaire and therefore made up the sample. Each student was rated by two persons of his choice and well acquainted with him using the Neurotic Styles Peer Rating Form. A text of association was then done to determine whether two were able to agree on the style which best described the subject (i.e. both ranked the same style 1) at a level significantly better than chance. It was found that the two raters agreed in 72% of the cases.

The Rorschach was the second instrument used to assess neurotic styles. A list of Rorschach variables thought to be associated with each neurotic style was assembled. Literature was reviewed to determine the cognitive, affective and behavioral correlates of Rorschach variables. Modes of thought feeling and behavior associated with each style as described by Shapiro (1965) were then matched to the corresponding Rorschach variables. Thus a list of Rorschach variables ranging from 14 to 16 was assembled for each style (see Table 1). The reference points used to determine whether a score was high or low were Beck (1950) means (see Appendix B).

Scoring

Each of the Rorschach protocols was scored by one of two raters according to the Beck scoring system (Beck, 1961). Two graduate students having completed a course on Rorschach administration and scoring served as raters.

Table 1. Rorschach Variable Patterns Associated with Each Neurotic Style

	O-C	F	H	I
R	High	Low	Low	High
RT	High	High		Low
W		High	High	
D				High
Dd	High		Low	Low
Z	High	High	Low	Low
M	High	High	Low	Low
C+CF:FC	C+CF<FC	C+CF<FC	C+CF>FC	C+CF>FC
SUM C	Low	Low	High	High
M:C	M>C	M>C	M<C	M<C
F%	High	High	Low	
F+%	High	High	Low	Low
V		High		Low
Y	Low	Low	High	Low
CONT	High		Low	
A%	Low		High	High
P	High		**High**	
S	High	High		Low
H+Hd	Low	High	High	High

Interrater Reliability

After all protocols had been administered and scored interrater reliability was determined. A random sample of six protocols were scored by both raters. Protocols were then categorized according to style based on which of the four indicator scores for each protocol showed the highest mean percent. For example if a subject showed 52% obsessive indicators, 43% paranoid indicators, 64% hysteric indicators and 53% impulsive indicators, he would be classified as a hysteric. The raters agreed on categorization in only three of the six cases, therefore only slightly above a level of chance.

Interrater reliabilities were also determined for each of the Rorschach variables through use of the Pearson Product Moment Correlation Coefficient. The correlations between judgments for all but two of the variables ranged from +.743 to +1.00 indicating a satisfactory degree of reliability. However, scoring for Z and F+% were quite unreliable showing correlations of .121 and .104 respectively (see Table 2).

Hypotheses

1. a. Subjects characterized by an obsessive compulsive style will demonstrate a higher percentage of obsessive compulsive Rorschach indicators than indicators of hysteric, paranoid and impulsive styles.

   b. Similarly these subjects will demonstrate a higher percentage of obsessive compulsive indicators than those classified in the other style categories.

Table 2. Interrater Reliability for Each Rorschach Variable Using Pearson Product Moment Correlation Coefficient

Variable	Pearson r	p
R	.996	< .001
RT	1.000	< .001
W%	.924	< .01
D%	.937	< .01
Dd%	.972	< .001
M	.956	< .01
Z	.121	ns
Sum C	.978	< .001
F%	.743	< .10
F+%	.104	ns
V	.969	< .01
Y	.816	< .05
CONTENT	.947	< .01
A%	.960	< .01
P	.776	< .10
S	.794	< .10
H+Hd	.912	< .02

2. a. Subjects characterized by a paranoid style will demonstrate a higher percentage of paranoid Rorschach indicators than indicators of hysteric, obsessive and impulsive styles.

   b. Similarly these subjects will demonstrate a higher percentage of paranoid indicators than those classified in the other style categories.

3. a. Subjects characterized by an hysterical style will deomnstrate a higher percentage of hysterical Rorschach indicators than indicators of obsessive, paranoid and impulsive styles.

   b. Similarly, these subjects will demonstrate a higher percentage of hysterical indicators than those classified in the other style categories.

4. a. Subjects characterized by an impulsive style will demonstrate a higher percentage of impulsive Rorschach indicators than indicators of obsessive, paranoid and hysteric styles.

   b. Similarly, these subjects will demonstrate a higher percentage of impulsive indicators than those classified in the other style categories.

Subjects

Experimental packets were distributed to 120 men and women. Of the original 120, 97 returned completed test forms indicating a desire to be included in the study. Fifty-three of these people failed to meet criteria for further participation and were therefore eliminated from the sample. (For packet contents and criteria for participation see procedure below.)

The final subject sample consisted of 42 students between the ages of 17 and 22; 18 men and 24 women. All were college students at Michigan State University. The subjects were obtained through psychology classes in which students are given extra credit for participation in ongoing

research. The investigator placed sign up sheets in each of two classrooms. These sheets contained information regarding the name of the experiment (Behavioral and Interpersonal Styles), the number of credits to be awarded, and the place and time to meet with the investigator if interested.

Procedure

All subjects met with the investigator at a specified time and place. At that time each subject received an envelope containing two Neurotic Style Peer Rating Forms and the following instructions which the investigator reviewed with him/her at the time of distribution:

> Thank you for volunteering to participate in this study. Enclosed in this envelope you have been given are two style rating forms. Please give one to each of two people you feel knowns you best. Ask them to fill it out and return the completed form to the envelope. Then bring the envelope to class and place it in a box provided at the front of the room. Please no not discuss the ratings with the raters.

The subjects were then told that there were two parts to the study and that not all of them would be asked to participate in the second part. They were further told that they would be recontacted when this decision was made but were given no further information on what basis that discrimination would be made.

The style rating forms (see Appendix A) were checked for reliability after they were returned. Those subjects for whom their two raters had disagreed as to

the style most characteristic of him i.e. had ranked two different styles as 1 were recontacted, thanked for their cooperation and told that no further assistance would be necessary. Those persons whose first place ratings were identical were called and a further testing session was arranged. At the specified time the Rorschach was administered to each subject. Each of the Rorschachs were scored by one of two raters according to the Beck scoring system (Beck, 1961). Two graduate students having completed a course in Rorschach administration and scoring served as raters and interrater reliabilities were determined.

Statistical Analysis

For each subject four percentage scores were determined indicating the percentage of obsessive compulsive, paranoid, hysteric and impulsive Rorschach indicators represented in his Rorschach record. A mean percentage score was then calculated for each of the four style groups to indicate the mean percent of obsessive compulsive, paranoid, hysteric and impulsive Rorschach indicators present for each of the style groups.

Twenty-four T-test comparison of means was then carried out to test 1) whether subjects characterized by a particular style will demonstrate a higher percentage of Rorschach indicators for that style than for the remaining three styles and 2) whether those individuals

demonstrating a particular style will show a higher percentage of Rorschach indicators for that style than indicators for any of the other styles. Following is a list of the six t-tests that were carried out to test Hypothesis 1.

Hypothesis 1a

For those identified as having an obsessive compulsive style the following comparisons were made:

1) mean percentage of obsessive compulsive Rorschach indicators and the mean percentage of paranoid Rorschach indicators.
2) mean percentage of obsessive compulsive Rorschach indicators and the mean percentage of hysteric Rorschach indicators.
3) mean percentage of obsessive compulsive Rorschach indicators and the mean percentage of impulsive indicators.

Hypothesis 1b

b) the difference in the mean percentage of obsessive compulsive Rorschach indicators demonstrated by those subjects having an obsessive compulsive style and those having a paranoid style.
5) the difference in the mean percentage of obsessive compulsive Rorschach indicators demonstrated by those subjects having an obsessive

compulsive style and those subjects having an hysteric style.

6) the difference in the mean percentage of obsessive compulsive Rorschach indicators demonstrated by those subjects having an obsessive compulsive style and those subjects having an impulsive style.

Six tests were then carried out in a similar manner to test the remaining three hypotheses.

RESULTS

Distribution of Neurotic Styles

The distribution of neurotic styles obtaind from the Neurotic Styles Peer Rating Form is shown in Table 3. This is not a random distribution but consists of 42 protocols selected from the original 97 subjects.

Table 3. Distribution of Neurotic Styles

Sex of Ss	Obsessive	Paranoid	Hysteric	Impulsive
Men N = 18	4	7	2	5
Women N = 24	11	4	2	7
Total N = 42	15	11	4	12

Hypotheses

Hypothesis 1a

It was predicted that those individuals having an obsessive-compulsive style would show a higher mean percent of obsessive-compulsive Rorschach indicators than paranoid, hysteric and impulsive indicators. A t-test comparison of means revealed that as expected the

obsessive compulsive style group showed a higher mean percent of obsessive indicators than hysteric and impulsive indicators, the difference being significant at the .01 level in the latter case. However, in contrast to prediction this group had a higher mean percent of paranoid indicators than obsessive indicators, although the difference was not significant (see Table 4).

Table 4. Obsessive Compulsive Rorschach Indicators vs. Indicators of Other Neurotic Styles for the Obsessive Compulsive Style Group

Rorschach Indicators	Mean Percent	df	t*	p
Obsessive Compulsive	50.83			
Paranoid	53.81	24	.67	ns
Hysteric	46.67	17	.97	ns
Impulsive	38.97	25	2.51	< .01

*One tailed test.

Hypothesis 1b

The hypothesis that those subjects characterized by an obsessive compulsive style would demonstrate a higher mean percent of obsessive Rorschach indicators than those classified in the hysteric, paranoid and impulsive categories was not supported by the data. The obsessive compulsive style group showed a higher mean percent of obsessive indicators than the hysteric and impulsive group and a lower mean percent than the paranoid group. However, these differences were not significant (see Table 5).

Table 5. Obsessive Compulsive Indicators: Obsessive-Compulsive Group vs Other Neurotic Style Groups

Neurotic Styles	Mean Percent of Obsessive Indicators	df	t	p
Obsessive-Compulsive	50.83			
Paranoid	52.27	24	.323	ns
Hysteric	46.88	17	.623	ns
Impulsive	50.00	25	.165	ns

Hypothesis 2a

The prediction was that those demonstrating a paranoid style would show a higher mean percent of paranoid indicators than indicators of the remaining three styles. The results were in the predicted direction but only the difference in mean percent between paranoid and impulsive indicators reached a level of significance (see Table 6).

Table 6. Paranoid Rorschach Indicators and Indicators of Other Neurotic Styles for the Paranoid Style Group

Rorschach Indicators	Mean Percent	df	t*	p
Obsessive Compulsive	52.27	24	.641	ns
Paranoid	55.20			
Hysteric	44.09	13	1.20	ns
Impulsive	42.05	21	2.78	< .01

*One tailed tests.

Hypothesis 2b

It was hypothesized that those individuals characterized as having a paranoid style would demonstrate a higher mean percent of paranoid Rorschach indicators than those having an obsessive, hysteric and impulsive style. This was not supported by the results. The paranoid style group showed a lower mean percent of paranoid indicators than both hysteric and impulsive groups and a higher mean percent only in relation to the obsessive style group. In none of the above cases were these differences significant (see Table 7).

Table 7. Paranoid Indicators: Paranoid Group vs Other Neurotic Style Groups

Neurotic Styles	Mean Percent of Paranoid Indicators	df	t	p
Obsessive Compulsive	53.81	24	.28	ns
Paranoid	55.20			
Hysteric	58.93	13	.546	ns
Impulsive	58.33	21	.364	ns

Hypothesis 3a

The expectation was that those identified as having an hysterical style would show a higher mean percent of hysterical Rorschach indicators than indicators of the remaining three styles. There were no significant differences

between means for the three comparisons made. Furthermore, while the mean percent of hysterical indicators exceeded mean percents of obsessive and impulsive indicators, the hysterical style group showed the highest mean percent of paranoid indicators. Therefore the hypothesis was clearly not supported by the data (see Table 8).

Table 8. Hysterical Rorschach Indicators and Indicators of Other Neurotic Styles for the Hysterical Style Group

Rorschach Indicators	Mean Percent	df	t	p
Obsessive Compulsive	46.88	17	.491	ns
Paranoid	58.93	13	1.11	ns
Hysteric	50.00			
Impulsive	40.63	14	1.44	ns

Hypothesis 3b

It was predicted that those individuals exhibiting an hysterical style would show a higher mean percent of hysterical Rorschach indicators than those characterized by obsessive, paranoid and impulsive styles. The results were in the predicted direction, but the differences were of nonsignificant magnitude (see Table 9).

Hypothesis 4a

This hypothesis predicted that those subjects identified as having an impulsive style would show a higher

Table 9. Hysterical Indicators: Hysterical Style Group vs Other Neurotic Style Groups

Neurotic Styles	Mean Percent of Hysterical Indicators	df	t	p
Obsessive Compulsive	46.67	17	.503	ns
Paranoid	44.09	13	.464	ns
Hysteric	50.00			
Impulsive	49.82	14	.035	ns

mean percent of impulsive Rorschach indicators than indicators of the other three styles. The results of the t-test comparisons of means were significant but in the opposite direction than predicted. The impulsive group showed a significantly lower mean percent of impulsive indicators than indicators of obsessive, paranoid and hysterical styles (see Table 10).

Table 10. Impulsive Rorschach Indicators and Indicators of Other Neurotic Styles for the Impulsive Style Group

Rorschach Indicators	Mean Percent	df	t*	p
Obsessive Compulsive	50.00	25	2.966	< .01
Paranoid	58.33	21	2.72	< .02
Hysteric	49.82	14	2.68	< .02
Impulsive	35.38			

*Two tailed tests.

Hypothesis 4b

It was hypothesized that those characterized by an impulsive style would demonstrate a higher percentage of impulsive Rorschach indicators than those classified in the obsessive, paranoid and hysteric categories. As in hypothesis 4a the results were in the opposite direction than predicted. However in this case the differences were nonsignificant thus failing to support the hypothesis (see Table 11).

Table 11. Impulsive Indicators: Impulsive Style Group vs Other Neurotic Style Groups

Neurotic Styles	Mean Percent of Impulsive Indicators	df	t	p
Obsessive Compulsive	38.97	25	.712	ns
Paranoid	42.05	21	1.469	ns
Hysteric	40.63	14	.859	ns
Impulsive	35.38			

Additional Results

A chi square test of association was also performed to assess association of neurotic styles to Rorschach style indicators. A nonsignificant chi square value of 3.996 with df = 9 was found. For distribution of styles determined by the peer rating form and styles determined by the Rorschach see Table 12.

Table 12. Frequency Distribution of Association of Neurotic Styles Determined by Peer Ratings and Neurotic Styles Determined by Rorschach Indicator Patterns

Peer Determined Styles	Rorschach Determined Styles				
	Obsessive	Paranoid	Hysteric	Impulsive	Total
Obsessive	3	7	3	2	15
Paranoid	1	6	3	1	11
Hysteric	0	3	1	0	4
Impulsive	3	6	3	0	12
Total	15	11	4	12	42

One additional analysis was attempted. A chi square test of association was attempted to determine whether there was a significant association between those identified as having a particular style and those who have been found to be most characteristic of that style according to the Rorschach. For example, since there were 15 obsessive compulsive, one would need to identify the 15 most obsessive people according to the Rorschach. For all four styles this was not possible since the variability of individual scores was not great enough (i.e. there were too many people with the same scores) thus the appropriate cut off points could not be adhered to. The analysis was therefore not completed.

DISCUSSION

The results of this study clearly suggest that there is no relationship between Rorschach variable patterns and Shapiro's (1965) Neurotic Styles. In none of the within group comparisons did those individuals identifed as having a particular style produce a significantly higher mean percent of the proposed Rorschach indicators associated with that style than indicators of the remaining three styles. Nor was it the case that between groups those characterized by a particular style demonstrated a higher mean percent of Rorschach indicators of that style than the three other style groups.

Quite in contrast to predicted results each of the four style groups showed the highest percentage of paranoid Rorschach indicators and the lowest percentage of impulsive indicators, with obsessive compulsive being second and hysteric ranking third in all but one case where the latter two were reversed. One possible explanation of this is that several of the variables hypothesized to be associated with both paranoid and obsessive compulsive styles have experimentally been found also to be related to intelligence level and achievement motivation. Thus one might expect these variables to be more prevalent

in a college population, particularly among students seeking out extra credit as was the case in the present study. This appears to be supported by the data which shows a significantly higher W%, M, Z, and number of content categories in this sample than in the Beck (1950) sample (see Appendix B). All of these are scores empirically related to intelligence.

Consequently, the applicability of the Beck means to a college population was questioned. A reanalysis of the data was therefore done using sample medians as points of reference in place of the Beck means. This too produced no significant results supporting the hypotheses (see Appendix F). However, as expected, the consistent rank ordering of indicators across style groups found in the original analysis disappeared.

An alternative hypothesis concerns sex differences. Researchers in the field of cognitive styles have found that men demonstrate more consistent stylistic differences across tasks and over time than women do (Gardner, Jackson and Messick, 1960; Witkin, Lweis, Hertzman, Machover, Meisner and Wapner, 1954). One might therefore speculate that the inclusion of women in this investigation may have obscured more clear-cut results. However, on inspection of the data, when sex differences are accounted for no significant results in support of the hypotheses are revealed (see Appendix E).

Before one can consider these results to be a

decisive refutation of the hypotheses several issues need to be explored. It therefore seems appropriate at this point to reexamine the theoretical constructs, their operational definitions and the psychometric methods used to measure them in an attempt to gain a better understanding of the data.

This study suffers from a host of problems that is inherent in exploring new theoretical ground. Unlike other cognitive style classification systems which were experimentally derived, the neurotic style categorizations were formulated largely on the basis of clinical observation and experience. The theory consequently neither provides a precise delineation nor an operational definition of the theoretical constructs. The Neurotic Styles Peer Rating Form represents an initial and admittedly unsophisticated attempt at such an operational definition. While possessing face validity, it is questionable whether this form effectively groups people into the categories described by Shapiro (1965). It is quite conceivable that those characteristics which are most central in identifying a particular style i.e. cognitive structuring and thought processes, were not the ones most salient to the peer raters, since 1) cognitive processes are, of all characteristics, least accessible to observation and 2) one might hypothesize that interpersonal characteristics were most salient for the peer raters because this is the sphere in which they most directly function

with the subject. The need for a more precise delineation of the theoretical constructs and a valid and reliable way of measuring them is evident.

Let us now turn our attention to the theory of neurotic styles itself and its implications for use of the Rorschach. Shapiro states that the styles he describes do not in reality exist in the pure form in which they are presented. Rather there is a great deal of overlap, with individuals demonstrating a predominant style, but also showing elements of other styles. Although not directly stated by Shapiro, one might imply from the theory that a style exists in its purest form in the neurotic state implying a certain rigidity of functioning. Furthermore as one moves along the continuum to more "normal functioning" one might expect greater accessibility to alternative ways of responding to the world and therefore greater overlap in styles. In their most extreme forms the overlap between paranoids and obsessives and between hysterics and impulsives theoretically is considerable. Thus when dealing with the "normal"population, the need for an instrument which has the capacity to make such fine discriminations is essential.

One might question whether the Rorschach possesses this sensitivity. On the basis of the reliability data one might conclude that the Rorschach is clearly ineffective in differentiating individuals according to neurotic style. Data shows that raters identically categorized

subjects in only three out of six cases used for reliability testing, thus only slightly above the level of chance despite the fact that scoring reliability on all but two of the individual Rorschach variables was significant. Furthermore inspection of the data indicates that miscalculation was not a function of the two unreliably scored variables. With reliability on individual variables so high and reliability in classification so low one might certainly be skeptical of the utility of the Rorschach.

An alternative conclusion is that it is not the Rorschach per se but the sign approach to the Rorschach used in this study which might account for the poor classification reliability.

A number of authors have addressed themselves to the problems of the sign approach in differentiating groups of subjects (Goldfried, Stricker and Weiner, 1971; Weiner, 1977; Zubin, Eron and Schumer, 1965). One of the major criticisms is that it fails to capture the essence of the Rorschach technique. The Rorschach represents a holistic approach to personality assessment. Its interpretation is not simply made by using a set series of interpretations for a particular pattern but reflects the skill, talents and sensitivities of the interpreter.

> . . . most clinicians base their interpretations on a series of implicit and sometimes explicit "hypotheses" as to the meaning of a particular response, score, group of scores, configuration of scores, or the quality of a particular record--sometimes weighting one or the other of these in accordance with the "flavor" of the whole record,

> or the intensity or "vividness" of the ratio, response, score involved (Zubin et al., 1965; p. 195).

Clearly the sign approach fails to account for these factors.

Weiner (1977) however does not suggest abandoning the sign approach since some attempts at using it have been quite successful (Goldreid, Stricker and Weiner, 1971). He does however reiterate the need for more methodological sound research design, which most importantly includes 1) the validation of signs, 2) the use of representative criterion groups and 3) the use of homogeneous diagnostic categories. The small number of subjects per group particularly in the hysterical group which contained only four subjects, the considerable overlap in Rorschach indicators ("signs") between styles, the use of mean percents rather than absolute numbers of indicators and the implicit assumption that all indicators are of the same weighting are all methodological flaws of the current investigation which must be corrected for in future research.

Perhaps even more essential however is the need for validation of the signs. The signs used in the present study were based on assumptions rather than on experimental validation. Thus these assumptions were in themselves speculative and therefore quite possibly incorrect. The data in fact indicates that many of the hypothesized individual signs were not characteristic of the predicted style group. The obsessive compulsive group exhibited

only six of the sixteen predicted signs, the paranoids showing nine of the hypothesized fourteen, the hysterics six of fifteen and the impulsives four of fifteen. Whether this is a result of misclassification of subjects, a non-representative sample, the small number of subjects per group or in fact incorrect hypotheses will need to be determined by future research.

Directions for Future Research

The preceding discussion has included several suggestions for further research. The need for a clearer articulation of the concept of neurotic styles, for the development of a reliable and valid measure of these styles, and for the validation of Rorschach signs indicative of them are clearly in evidence.

However this study also possesses implications for Rorschach research apart from its use as a tool for the investigation of neurotic styles. Quite obviously there is a need for more normative Rorschach studies if it is used effectively in either a clinical or research setting. As it applies to research this seems to be particularly important for a college population since this is a primary source of subjects used in investigation. Without totally abandoning the present approaches to Rorschach research it also seems desirable to refocus some energies in further objectifying the interpretive process. While one attempt at this has been proposed by Zubin et al. (1965), its

utility has not yet been investigated.

The study of neurotic styles also provides an opportunity to look at the way in which adaptive modes of functioning relate to psychopathology. One might be able to determine which characteristics transcend this boundary and which distinguish normal from pathological states. One might also investigate whether there are certain types of environmental conditions which are more stressful for individuals of one style more than for another which may facilitate the development of preventive mental health approaches.

A final important area of investigation would be a more precise clarification of the process by which neurotic styles develop. There is some evidence to suggest that there is a correlation between child temperament and cognitive styles (Keagon, Rosman, Day, Albert and Phillips, 1964). More in depth study of the relationship of these two variables seems appropriate and desirable.

SUMMARY

The present study was designed to assess the relationship between Shapiro's Neurotic Styles and Rorschach variable patterns. The sample consisted of the 42 undergraduate subjects, 18 male and 24 female whose two raters on the Neurotic Style Peer Rating Form had agreed on neurotic style classification. The Rorschach was given to each subject. A list of Rorschach variables, hypothesized 64 to be associated with each neurotic style as compiled. For each subject four Rorschach scores were determined indicating the percentage of obsessive compulsive, paranoid, hysteric and impulsive indicators represented by his record. Ninety-nine T-test analyses were then carried out to test 1) whether subjects characterized by a particular style would demonstrate a higher percentage of indicators for that style than for the three remaining styles and 2) whether those demonstrating a particular style would show a higher percentage of indicators for that style than indicators for each of the other styles. These hypotheses were not supported by the data.

APPENDICES

APPENDIX A

BEHAVIORAL STYLE RATING FORM

APPENDIX A

BEHAVIORAL STYLE RATING FORM

Instructions:

The following pages contain a description of four different styles of human behavior. In the space provided on the last page of this form please rank order these four styles according to how similar each description is to the person who has asked you to fill out this form. Thus write 1 next to the style he is most like, 2 next to the style he is next most like, 3 to the next, and 4 next to the one he is least like. Please be sure to read through all four descriptions before beginning the ranking.

When finished please check to see that there is a number in front of each style and that no number has been repeated.

Style A

A person representing this style has very good powers of attention and concentration. She/he is particularly observant and seems to have a talent and a need for integrating all available information to gain an overall perspective of things. Often this results in a perceptive and accurate evaluation of a situation. However, this individual also has a tendency to have rather strong preconceived ideas and this sometimes results in a somewhat biased interpretation of the facts.

This seems to be particularly true in her/his relationships with people. She/he is especially sensitive to criticism by those in positions of authority. She/he may misinterpret rules, requests or demands made by a teacher, boss or parent as a criticism, reacting either with arrogance and superiority, or with apprehension. Thus she/he sometimes tends to be suspicious of others and at times questions their motives. This oversensitivity sometimes results in her/his remaining distant from people, being cautious and not feeling comfortable enough to relax and be spontaneous. In general, it enables her/him to be sensitive and empathic with others, allowing her/him to form relationships in which she/he perceptively takes into account the feelings of other people.

In addition this individual expends much energy anticipating events and planning for them, trying to avoid the unexpected. Thus he has only limited time to engage in outside interests. She/he seems to be quite fascinated with mechanical devices and with the available time pursues hobbies related to this interest, finding little satisfaction with more aesthetic endeavors such as art or music.

Style B

The person manifesting this style is almost always engaged in pursuing some goal. She/he is a hard worker; not easily distracted and has good capacity for long term concentration. It is thus not surprising that this person often performs quite well academically. She/he is particularly perceptive of the finer details of things and seems to derive a great deal of satisfaction from technical accomplishments.

When not actively engaged in pursuing her/his goals she/he sometimes has difficulty relaxing and enjoying her/himself, rarely doing things on impulse or simply for fun. Instead she/he tends to be preoccupied with what she/he should be doing to achieve her/his next goal.

In general, she/he tends to give a great deal of thought to things before acting. While at times this seems to facilitate well thought out solutions and good judgment, at other times it results in a great deal of difficulty making decisions. She/he tends to weigh all the alternatives and often wavers back and forth between choices as if there were an identifiable right and wrong answer to everything. Once the decision is made, however, she/he stands committed to it, avoiding any new information which may shed doubt on its correctness. Thus in discussions with others she/he sometimes appears dogmatic, seeming to pay little attention to the arguments of others.

In general, this individual is more comfortable dealing with matters concerning technical detail than interpersonal contact. Upon meeting her/him she/he may seem ill at ease until she/he has figured out what his appropriate role for the situation is. Overall, she/he is less emotionally expressive than others, appearing to take an intellectual, rational approach to life.

Style C

The person exhibiting this style seems to have an irrestible urge to act. She/he often does things on the spur of the moment, without planning or consideration of the consequences. When pressed about the reason for doing something, she/he will often be unable to come up with an adequate explanation or excuse; "I couldn't help it" or "I just did it" being a common reply. Thus his judgment is sometimes viewed as arbitrary or reckless and lacking in reflection.

Despite this, she/he seems to be capable of accomplishing his immediate goals and fulfilling her/his needs with facility and speed. In general, she/he tends to live for the present, having few long range plans or ambitions. Her/his interests seem to change frequently and abruptly, showing no sustained commitment to any cultural, political or aesthetic cause unless it in some way serves her/his immediate needs.

In her/his relationships with others she/he is often seen as a happy-go-lucky person; self-confident, uninhibited and easy going. Socially she/he tends to be charming and often times entertaining. However, she/he sometimes has difficulty establishing deep commitments to any one person. At times he/she uses his/her charm to manipulate others for his/her own benefit with little consideration for their feelings. Thus she/he tends to have a variaty of acquaintances and only a few close friendships.

Style D

An individual showing this style tends to be spontaneous, speaking in a lively manner and responding to those aspects of the environment that are most vivid, colorful and obvious. Often, however, she/he is unaware of the more subtle aspects of things. When asked to describe a person or object she/he has seen, she/he is more likely to answer with general impressions rather than with detailed description: "The play was fantastic. I loved it!" rather than "The play was about three men shipwrecked on an island." When factual answers are required, she/he may produce a correct answer but be totally unable to explain the process by which the answer was obtained. Thus she/he often gives an impression of being flighty and scattered although she/he may be quite competent.

In general, she/he is easily distractible and lacks the concentration and attention necessary for academic pursuits. Thus although she/he may possess more than adequate intellectual potential, she/he lacks the intellectual reflectiveness and perserverance necessary for sustained intellecutal activity.

This individual prefers to get involved in tasks and activities which require direct interaction with others. Easily influenced by other people, she/he will often get caught up in the newest fad or trend, showing great enthusiasm for each new endeavor. Sentimental and romantic, she/he is easily infatuated, falling in and out of love frequently and has an optimistic attitude towards life. Along with this optimistic enthusiasm are also periods of emotional outburst. She/he her/himself is often quite surprised at the intensity of these outbursts. However, these periods pass quickly and are seen by her/him as something that comes over her/him rather than a true reflection of her/his feelings. She/he is thus surprised when others take them seriously.

I HAVE FOUND THE FOLLOWING RANK ORDER TO BE MOST APPLICABLE:
1 INDICATING MOST LIKE, AND 4 LEAST LIKE:

_____ Style A

_____ Style B

_____ Style C

_____ Style D

If you have had any difficulty understanding the instructions or in understanding and ranking the styles, please describe these difficulties in as much detail as possible.

Thank you for your cooperation.

APPENDIX B

RORSCHACH VARIABLES SAMPLE MEDIANS
MEANS AND STANDARD DEVIATIONS

APPENDIX B

RORSCHACH VARIABLES: SAMPLE MEDIANS MEANS AND STANDARD DEVIATIONS

Variable	Median	Mean	Standard Deviation
R	26.5	29.09	10.52
RT	21.05	21.82	10.77
W%	26.69	30.69	15.01
D%	63.17	63.07	13.02
Dd%	4.18	5.36	6.65
M	5.00	6.01	3.33
Z	52.25	49.70	16.96
SumC	2	3.10	2.27
F%	49.24	52.52	13.54
F+%	72.50	68.11	11.47
V	2	1.75	1.60
Y	2.5	1.25	2.66
CONT	10	7.25	3.23
A%	41.5	58.35	15.60
P	5.5	4.5	1.83
S	2	1.25	2.21
H+Hd	6	3.00	4.63

APPENDIX C

T-TEST COMPARISONS OF BECK MEANS AND SAMPLE MEANS FOR EACH RORSCHACH VARIABLE

APPENDIX C

T-TEST COMPARISONS OF BECK MEANS AND SAMPLE MEANS FOR EACH RORSCHACH VARIABLE

Variable	Beck Mean	Sample Mean	t	p*
R	32.65	29.09	2.20	< .05
RT	23.36	21.82	.93	ns
W%	19.81	30.69	4.69	< .001
D%	71.94	63.07	4.35	< .001
Dd%	8.23	5.36	2.78	< .01
M	3.50	6.01	4.92	< .001
Z	22.48	49.70	10.39	< .001
SUM C	3.11	3.10	.03	ns
F%	70.17	52.52	8.44	< .001
F+%	79.25	68.11	6.29	< .001
V	1.84	1.95	.44	ns
Y	1.96	3.48	3.71	< .001
CONTENT	6.60	9.90	6.60	< .001
A%	46.45	46.09	.15	ns
P	6.79	5.38	5.03	< .001
S	1.90	2.98	3.18	< .01
H+Hd	5.80	6.88	1.50	ns

*Two tailed test with df = 41.

APPENDIX D

RORSCHACH VARIABLE MEANS AND STANDARD DEVIATIONS FOR EACH NEUROTIC STYLE

APPENDIX D

RORSCHACH VARIABLE MEANS AND STANDARD DEVIATIONS

FOR EACH NEUROTIC STYLE

Variable	Obsessive	Paranoid	Hysteric	Impulsive
R				
Mean	31.33	30.00	19.00	28.83
S.D.	11.62	5.76	3.46	12.76
RT				
Mean	21.76	18.73	27.13	22.52
S.D.	13.08	7.43	12.82	9.95
W%				
Mean	30.74	26.77	40.77	30.67
S.D.	20.57	9.57	4.51	12.63
D%				
Mean	63.42	66.76	58.10	60.31
S.D.	16.57	9.28	6.30	13.50
Dd%				
Mean	5.84	6.19	1.14	5.67
S.D.	8.55	5.72	2.28	5.74
M				
Mean	6.07	4.55	3.25	6.83
S.D.	2.49	2.94	2.63	4.30
Z				
Mean	54.23	45.36	40.50	47.96
S.D.	15.80	17.30	13.29	18.86
Sum C				
Mean	3.90	2.41	1.63	3.00
S.D.	2.59	1.99	.25	2.25
F%				
Mean	48.34	60.43	52.27	51.17
S.D.	8.40	15.27	15.91	14.95
F+%				
Mean	69.47	67.06	70.28	65.81
S.D.	8.79	16.37	5.41	8.37

Variable	Obsessive	Paranoid	Hysteric	Impulsive
V				
MEAN	2.00	1.55	1.75	2.25
S.D.	1.59	1.44	2.22	1.71
Y				
MEAN	4.87	2.82	1.25	3.25
S.D.	3.00	2.14	.96	2.45
CONTENT				
MEAN	11.07	9.45	7.25	9.67
S.D.	3.67	3.30	1.26	2.61
A%				
MEAN	41.67	49.03	58.35	44.85
S.D.	12.93	14.56	17.95	17.97
P				
MEAN	5.73	5.18	4.50	5.33
S.D.	1.53	1.66	1.00	2.50
S				
MEAN	2.73	3.36	1.25	3.42
S.D.	2.25	2.30	.50	2.27
H+Hd				
MEAN	6.33	6.27	3.00	7.25
S.D.	3.22	4.24	2.71	6.42

APPENDIX E

MEANS OF RORSCHACH STYLE INDICATORS FOR EACH NEUROTIC STYLE FOR MALES AND FEMALES

APPENDIX E

MEANS OF RORSCHACH STYLE INDICATORS FOR EACH NEUROTIC STYLE FOR MALES (N = 18)

Style	Rorschach Indicators			
	Obsessive	Paranoid	Hysteric	Impulsive
Obsessive	43.75	53.41	56.67	36.67
Paranoid	53.37	58.17	45.11	41.31
Hysteric	40.62	60.71	53.33	38.96
Impulsive	46.25	54.29	47.58	39.58

MEANS OF RORSCHACH STYLE INDICATORS FOR EACH NEUROTIC STYLE FOR FEMALES (N = 24)

Style	Rorschach Indicators			
	Obsessive	Paranoid	Hysteric	Impulsive
Obsessive	53.41	53.25	43.03	39.81
Paranoid	50.00	50.00	42.29	43.33
Hysteric	53.13	57.14	46.67	42.29
Impulsive	52.68	61.23	51.43	32.28

APPENDIX F

MEANS OF RORSCHACH STYLE INDICATORS FOR EACH NEUROTIC STYLE USING SAMPLE MEDIANS AS POINTS OF REFERENCE

APPENDIX F

MEANS OF RORSCHACH STYLE INDICATORS FOR EACH NEUROTIC STYLE USING SAMPLE MEDIANS AS POINTS OF REFERENCE

Style	Rorschach Indicators			
	Obsessive	Paranoid	Hysteric	Impulsive
Obsessive	53.75	49.05	47.56	48.75
Paranoid	55.11	50.91	43.26	47.69
Hysteric	40.63	57.14	55.00	51.67
Impulsive	54.69	50.60	48.89	49.68

APPENDIX G

MEAN PERCENT OF RORSCHACH INDICATORS FOR EACH STYLE USING BECK MEANS

APPENDIX G

MEAN PERCENT OF RORSCHACH INDICATORS FOR EACH STYLE USING BECK MEANS

Style	Rorschach Indicators			
	Obsessive	Paranoid	Hysteric	Impulsive
Obsessive	50.83	53.81	46.67	38.97
Paranoid	52.27	55.20	44.09	42.05
Hysteric	46.88	58.93	50.00	40.63
Impulsive	50.00	58.33	49.82	35.38

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