TEST ORDER EFFECTS ON CHILDREN'S RORSCHACHS

THESIS

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By

Edward L. Coyle,II B.S.
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Thirty-three children from a community sample, ages 5 to 13, were administered the Rorschach Inkblot Test, along with projective Draw-an-Animal and Draw-a-Person tasks and other psychological measures. Subjects were randomly assigned to one of three test order conditions: Draw-an-Animal followed by the Rorschach, Draw-a-Person followed by the Rorschach, and Rorschach before any other projective test. The number of Human and Animal contents in the test records was examined. Analysis showed no significant differences among the three groups for production of the content variables, suggesting that the Rorschach Inkblot Test is relatively robust with respect to test order effects.
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CHAPTER I

INTRODUCTION

Psychological assessment is one of the most important tools of the psychologist. Indeed, testing is a primary function for many psychologists, and one which has helped to define clinical psychology as a profession. Assessment is very often an integral part of diagnosis, treatment planning, educational placement and making recommendations for specific actions, such as sentencing in criminal cases, awarding custody and deciding legal competence to manage one’s affairs.

The choice of instruments employed may vary, depending on the purpose of the assessment. Some tests and techniques have come into and passed out of use over time; however, there are some which seem to be fixtures in the psychological assessment battery. Practitioners generally have a favored set of instruments which they have found to be particularly useful in providing information about their clients. In a recent survey of practicing psychologists, Piotrowski and Keller (1989) found that projective drawings, the Rorschach Inkblot Test (Rorschach, 1921) and the Thematic Apperception Test (Murray, 1943) are among the ten instruments most frequently used by practitioners. Thus, despite claims by some researchers which question the
validity of projective methods (Chapman & Chapman, 1969), many psychologists who spend their careers studying human personality tend to employ such measures in clinically useful ways.

There are many volumes, experiments and monographs devoted to exploring various phenomena related to intellectual and personality testing. One particular area which has perhaps received less attention than others is that of external conditions during testing which may affect the results. It seems evident that the degree to which such test results reflect the basic underlying personality of the subject rather than the mutable effects of external conditions present during assessment is an important factor for consideration.

Environmental variables such as noise, temperature and examiner characteristics are considered to influence test performance; hence the explicit directions included in most testing manuals requiring a quiet and non-stimulating testing environment, along with admonitions to the examiner to remain as objective and non-directive as possible. A factor which has received little attention so far, however, is that of the effect one test has upon another when administered to the same individual during a testing battery. Of particular interest to some researchers has been the possible influence of other tests upon the record obtained utilizing the Rorschach Inkblot Test (Rorschach,
1921). Studies of this subject have produced equivocal results. Van De Castle (1964) found evidence suggesting that exposure to the Thematic Apperception Test (Murray, 1943) and the Draw-a-Person (Goodenough, 1926) test was associated with increased amounts of human movement and human content in subjects’ Rorschach records. Similarly, Magnussen (1967) reported an increase in the animal content of children’s Rorschach records following administration of the Children’s Apperception Test (Murray, 1943) and the Draw-an-Animal task.

Gibby, Stotsky and Miller (1954) however, found no significant differences for eleven Rorschach variables in the records of individuals who completed either the Bender-Gestalt (Bender, 1938), Thematic Apperception Test (Murray, 1943), Goldstein-Scheerer test (Goldstein & Scheerer, 1941) or Wechsler-Bellevue (Wechsler, 1946) prior to the Rorschach. Kurtz and Riggs (1954) attempted to influence subjects to respond with greater animal content by inducing a set to be aware of animals prior to performing the Rorschach. They utilized a suggestion to experimental subjects that they would be shown words related to animal and birds, then exposed the subjects tachistoscopically to a series of nonsense words. Subjects then completed a set of partial words, and then responded to the Rorschach. Experimental subjects did complete more partial words with animal responses than the controls; however, the Rorschach
records did not reflect any significant differences among the subjects in the amount of animal content produced. McCraw and Pegg-McNab (1981) examined the effects of administering the Hand Test (Wagner, 1962) before or after the Rorschach, and found no significant differences in human or movement responses. The question of what effects, if any, prior tests have on Rorschach content appears to remain unanswered, and largely unexamined. Thus the present study examined the effects of order of test administration on certain content variables in the Rorschach response record.

The Projective Hypothesis

The hypothesis underlying the use and interpretation of projective tests, often referred to as the projective hypothesis, has been the subject of extensive thought and writing since its inception. In its original meaning, projection referred to the unconscious displacement by a person of unacceptable internal impulses or qualities onto the environment or other people. As such, projection figured strongly in the paranoid disorders, in which other people or the paranoid's surroundings were perceived as hostile, threatening or dangerous (Freud, 1894).

Projection as a defense serves the purpose of decreasing psychic discomfort. However, as Rorschach's method in particular, and other projective techniques in general became more popular among psychological professionals, it soon became apparent that the projection
involved was not always synonymous with Freud's defense mechanism. In a later formulation by Freud, and in subsequent interpretations, the projective hypothesis has come to represent a broader concept, one in which an individual's underlying personality is expressed continuously through behavior toward the environment, and may be best discovered or uncovered through his/her responses to certain stimuli. The underlying personality is not only continually expressing itself through behavior. Through projection, each individual creates the form and meaning of the surrounding world for him or herself. An individual who has deep seated aggressive impulses will perceive other people and even inanimate objects and forces of nature as powerful and threatening. One who has been denied a proper amount of nurturance and comfort comes to see his or her environment as cold and unrewarding, regardless of the objective circumstances of the individual. These perceptual interpretations are largely, if not entirely, unconscious processes which appear to a greater or lesser extent in all of the individual's interactions with the environment, and will shape the actions one makes in response to internal and external conditions. With training and a conceptual background upon which to base observations, the projection of personality may be observed in any number of situations.

This internal template for response may be modified
somewhat, however. Bellak (1962) conducted experiments in which he gave subjects post-hypnotic suggestions that they would experience anger, sadness, or elation, after which they responded to the Thematic Apperception Test (Murray, 1943) stimuli. He found that the responses to the test did appear to reflect increased levels of the suggested sadness and anger, supporting the idea of defensive projection of the unacceptable emotions. However, the subjects instructed to feel elation also showed an increase in material related to this emotion. This is contrary to the original conception of defensive projection, as elation, a positively valued emotional state, should not evoke an ego-protective response, lending support to a broader interpretation of projection.

It also seems that the responses elicited by projective tests necessarily involve more than only unconscious projections. The methods labeled projective consist of the presentation of various ambiguous stimuli, such as amorphous as in the Rorschach (Rorschach, 1921) or Holtzman Inkblot Tests (Holtzman, Thorpe, Swartz & Herron, 1961) or specific but somewhat ambiguous visual stimuli as in the Thematic Apperception Test (TAT; Murray, 1943), spoken words or other aural stimuli, or other stimuli to which a number of responses may be made.

Because the recorded responses are primarily intentional behaviors, e. g., verbalizations, drawing
figures, arranging objects, there must be considerable conscious control involved in these expressions on the part of the subject. Therefore, what one observes during the projective test is likely composed of both unconscious and conscious expressions by the subject. Additionally, the stimuli tend to possess some features which do present rather explicit form demands. Thus, many responses to a projective technique may not truly involve a projection of an inner quality, but rather a straightforward perception or association based on objective qualities. Exner (1989) states that, although the Rorschach blots do not possess "precisely defined stimulus parameters of a specific object such as a glass, a spoon, or an automobile, it is also obvious that the blots are not totally ambiguous. Quite the contrary, all have discrete stimulus features that limit the parameters of translation or classification or, stated differently, that encourage certain translations or classifications to occur" (p. 523). The recurring popular responses, such as "bat" to card I, or "butterfly" to card V suggest that at least some of the blots do resemble known objects to a significant degree, thus such responses are unlikely to be greatly revealing of the subject’s underlying thought processes.

Projection, particularly as observed in a testing situation, may be perhaps better understood through metaphor, several of which have been posited. When
considering the use of projective techniques, Rapaport (1968) offers the analogy of the motion picture projector, with the subject's personality being the projector, the technique as the projector lens, and the recorded information being the screen.

Bell (1948) draws a parallel between projection in testing and a map or schematic diagram, in which a two-dimensional record represents a three-dimensional reality. This metaphor is particularly interesting when considering the complexities of personality which can only be approximated by lower-order methods of inquiry available to the outer observer, in this instance the clinician. Extending this analogy, a clinician could be seen as wishing to examine the diagram of a personality in order to locate weaknesses and strengths of its design, and to plan possible interventions to alter the shape of some features thus revealed. It may be found that the basic structure is sound but requires some minor adjustments to the upper levels, while in another instance there may be a serious flaw in the lower or basic sections which threatens the integrity and functioning of the whole. Bell (1948) states that he prefers to conceive of projection as a thrusting out of the underlying personality during testing, which results in an externalization of behavior which is representative of the way in which the person would typically behave.

As Rapaport (1968) states, the projective test reveals
information which the person is unable or unwilling to provide in response to direct questioning. It is then left to the clinician to interpret the information thus obtained.

Theoretical Bases of Projective Interpretation

It has been apparent to many psychologists that projective test data must be interpreted and acted upon within a specific theoretical framework for the results to be usefully integrated into therapy and other applications. A number of theories have been proposed for interpreting such data. The first and perhaps most widely used theoretical base for projective interpretation is psychoanalytic theory, as formulated by Freud and his followers. Rorschach (1921) originally utilized psychoanalytic concepts in interpreting some of the material elicited by his method, although he felt that the technique did not "probe into the content of the subconscious" (p. 123).

Rapaport (1968) has spent considerable effort in examining this approach. He recognizes that this endeavor is not a simple one, and warns against an incautious or uncritical interpretation of projective material in a direct psychoanalytic manner, stressing the need to realize that such responses have both conscious and unconscious bases. Rapaport holds that one of the primary values of projective tests is that the responses elicited represent the thought processes of the subject, and as such are primarily products
of ego. He states that unconscious material may occasionally break through and should be interpreted in a traditional psychoanalytic manner, but that these are relatively rare occurrences. Rapaport believes that the thought processes elicited are perhaps most like defense mechanisms, which he holds to be the subject of psychoanalytic ego psychology. He states that the "great unsolved task of projective testing" (p. 23) is to combine the knowledge of defense mechanisms with information about conscious thought patterns as elicited by the techniques into a coherent theory (Rapaport, 1968).

Schafer (1954) has also spent a great deal of effort in attempting to integrate projective testing and psychoanalytic theory. One of his major emphases is that projective testing involves an interaction among the subject, the tester and the testing environment, and not simply an objective, impersonal observation carried out by the tester upon the isolated subject. Schafer notes that various needs and countertransferences of the tester operate to shape the responses given to projective tests, particularly to the Rorschach.

Schafer’s integration examines the role of imagery and its production in the response process. He states that imagery which is emotionally charged, highly private and attached or connected to more than one level of the psyche is kept locked away from public expression. However, it is
impossible to prevent this material from being expressed subtly through verbal and nonverbal behavior, particularly in social interactions. The Rorschach requires a degree of fantasy or imagination, and Schafer holds that the instructions given for the Rorschach tend to intensify the subject's simultaneous awareness of both internal and external factors. He employs the phrase "regression in service of the ego" (Schafer, 1954) coined by Kris (1952, p.177) to describe the process by which ego releases its control over id in order to produce the required imaginative responses. In this way, secondary, or reality-based psychological process, recognizing that it is limited in its ability to produce creative material, employs the primary process to accomplish ego's goals of responding to the test demands.

Because the Rorschach record contains responses which incorporate all levels of the psyche, and because the underlying charged symbols shape the subject's verbalizations and perceptions, record content may be studied to gain an understanding of the subject's psychosexual development from a psychoanalytic perspective (Schafer, 1954). Content will likely reflect the basic personality structure and areas of particular energy investment. Likewise, frequently employed defenses should be apparent from the record. This type of information can be vital to clinical treatment.
Projective tests have also been examined from the perspective of learning theory. This approach evaluates the testing situation in terms of the subject’s prior experience and its similarity to the testing situation. Various components of the testing situation, including qualities of the tester, the environment and the test stimuli operate to evoke responses which the subject has made in other similar circumstances.

Holzberg (1968), in reviewing the application of learning theory to projective testing, states that seven fundamental concepts are necessary to interpret projective test data from a learning theory perspective. These are habit, generalization, test situation, origin situation, criterion situation, habit strength and conflict. Habit refers to a response which the subject has made in the past and is likely to make again. Generalization describes the tendency for a response to be elicited by stimuli which approximate but are not identical with those present in the origin situation (when the association was formed). The criterion situation is any in which the subject is observed making responses to stimuli. Habit strength refers to the relative likelihood of a behavior in the subject’s repertoire being evinced in any situation. Conflict is an important concept, concerned with the idea that the expression of a habit may be inhibited by a contrary behavior which is stimulated in the same situation.
Utilizing these concepts, one may interpret the subject's responses to a projective technique as indicative of her/his early associational experiences. The testing situation must be examined to determine what features of the instructions, test stimuli, environment and examiner are evoking particular behaviors from the subject. According to Holzberg, this knowledge can then be used to predict to a greater or lesser extent how the subject will behave in other situations which share these qualities.

Goss and Brownell (1957) describe a method of projective interpretation which focuses on the stimulus-response characteristics of the test situation. According to these authors, many of the elements of the testing situation may be considered to be relatively stable or constant throughout the testing, such as the physical environment, verbal cues from the examiner, and internal physical cues on the part of the subject. Conversely, the test stimuli are seen to be "relatively different or novel events within contexts of sets of persisting or recurring stimuli" (Goss & Brownell, 1957 p. 506). Thus, responses in the test must be viewed as being triggered primarily by the novel stimuli.

Goss and Brownell (1957) describe the response process in terms of sensory orientation to the stimuli, followed by a response elicited through generalization, i.e., the similarity of some features of the stimuli to those present
in earlier learning situations. They emphasize the importance of discrimination in making a response. Some possible responses may have been more strongly or more frequently rewarded than others which are aroused by the same stimulus. The response which has a greater strength would be more likely to be produced.

Goss and Brownell (1957) also comment on the associative aspects of responding to projective stimuli. They point out that, once a response is made, it in turn becomes a stimulus to further responses. Thus, the original associations may shape the responses which follow through associative chains. Interestingly, these authors interpret such analytic concepts as reaction formation and identification/projection from a stimulus-response perspective, relating them to associations of "I-self" stimuli or "other" stimuli. Brownell and Goss (1957) also describe how inferences regarding extra-test behavior might be made from test responses. They feel, however, that the method at present would be more likely to result in significant errors that useful predictions.

Regardless of how one views the genesis of projective material, it has become an integral part of psychological assessment upon which many clinical decisions are based. An important question regarding these productions is to what extent they represent actual reflections of the subject's psyche.
This study examined the influence of external conditions, namely the presentation of projective drawings, on resulting Rorschach record content. Either of the above theoretical frameworks could account for the possible alteration of Rorschach responses due to exposure to prior stimuli. Learning theory would assume that any presentation of visual material (in the form of the subject's produced drawing) would alter the unique stimulus field of the testing situation, calling up a different chain of associations than would appear in response to the inkblots alone.

Psychoanalytic theory might suggest that the drawing task requires an activation of creative energies which are ordinarily kept in check by ego and would not usually be present in such strength during testing. These impulses would then result in different responses to the stimuli than would be made without the additional forces impacting on the subject. The content of the drawings should also have an effect on the subject's associations as the subject identifies with the drawn figure, with more controlled and higher-level drawn objects (people) enabling the subject to respond in a more controlled fashion than those which activate more primary impulses (animals).

The dynamic interpretation seems to offer a more useful and comprehensive approach for clinicians than that of the learning theorists, in that it postulates a coherent
underlying structure of personality which is shared by all human beings and is shaped by basic forces which act in similar fashion on the individual throughout life. These common factors and drives allow the clinician to predict, to a greater or lesser degree, not only the outward behaviors of the individual, but also to make reasonable judgements regarding the inner psychological functions which direct these behaviors. Conversely, learning theory leaves much to be desired in its application to the study of personality. It fails to provide adequate explanation for the organizing factors which must exist to produce behavior. Due to the basic nature of the theory, it must ignore the mental actions which occur in conjunction with observable behavior and which appear to be deeply important on an intuitive level, as well as from reported experience of thought and behavior. Appetitive drives as employed by learning theory do not explain much of human experience, particularly that of creativity and that which leads to physical damage or extinction. Finally, the learning theory approach seems ill-fitted to explain the basic similarities found among individuals. It would follow from this approach that each individual would have an almost infinite number of conditioned responses to stimuli and that each individual’s conditioning would necessarily be dramatically different from another’s. This should logically lead to an impossible diversity of behavior among people, which clearly does not
exist to the extent predicted by the model. To the contrary, psychologists have long noted more similarities than differences in human personality. For these reasons, it appears that a psychodynamic theory which describes the interplay of psychic forces yields a more comprehensive structure for interpreting projective test data.

The Rorschach

The Rorschach Inkblot Test, originated by Hermann Rorschach (1921) is perhaps the most well known personality test in the field. Originally conceived as a test of perceptual ability, the data generated from this method quickly became the subject of more involved study, namely in the assessment of various personality qualities. The ten inkblot reproductions are presented in order to the subject, usually with minimal instructions to describe what the blot might be. The descriptions provided by the subject regarding his/her perceptions and the location of pertinent details are then examined and compared to the common responses of others. Since its origination, the Rorschach has fostered numerous methods of interpretation. It has been assailed by many, and as staunchly defended by others. Numerous studies have been carried out to investigate the technique’s utility as a diagnostic tool, particularly in clinical settings.

The continuing controversy over the Rorschach Inkblot Test (Rorschach, 1921) is one which exemplifies the schism
between psychologists who advocate the use of projective techniques and those who vilify it, considering it to be useless at best and dangerous at worst. Research attempting to assess the validity of the Rorschach, like most topics of study, includes both very good and very inept efforts. Utilizing a meta-analytic technique to summarize a number of Rorschach studies, Parker (1983) examined the aggregate reliability and validity of the test. He found that, when used with a standardized scoring system and coherent theoretical background, "about 70% of the variance in Rorschach scores can be accounted for" (p. 231). Parker translates this to a reliability coefficient of approximately .83, a level considered robust by most psychometricians. Parker also examined the ability of the studies to assess the relationship between "some independent measure (categorical or otherwise) and a Rorschach score" (p. 231) as an estimate of validity. In studies which were considered well conducted, the variance accounted for was 20%, translating to a validity coefficient of .44.

Rorschach Content Variables

The variables of interest in this study were responses involving animal and human contents. Responses of this type have been considered to be of significance by virtually all Rorschach interpreters (Exner, 1986; Beck, 1954). The general consensus appears to be that both animal and human contents tend to represent the subject’s projection of self-
image or emotional expressions, and one's beliefs or impressions of other people. Whether the content is animal or human depends upon the extent to which the subject is willing to accept the expressed feelings as being representative of one's own personal feelings, as well as the amount of effort the subject is willing to spend on the task.

Klopfer (1954) states that animal contents should be seen as being more distanced and less conscious expressions, and are related "to inner drives or affects that are currently unrelated to adjustive or creative capacities". (p. 187) Conversely, a subject who reports perceiving human figures in the ambiguous stimuli is thought to be expressing more modulated processes.

Human content is almost always viewed more favorably than animal, and is considered an indicator of one's ability to understand social interaction, level of maturity regarding views of self and others, and degree of interest and capacity in participating in the human social world (Exner, 1986). The relative presence of animal and human content is recognized to be dependent to a significant degree upon the age of the subject, and thus is assumed to be indicative of intellectual and emotional development. Siegel (1987) remarks that young children (4-6 years of age) have a strong tendency to endow animals with anthropomorphic characteristics, which she considers to be indicative of
their use of primitive symbols. This type of response decreases as the child becomes more in control of her/his impulses and begins to operate and perceive in more realistic ways. This progression can be seen in Exner’s (1990) normative sample. Children at age 5 have a modal number of 12 pure animal (A) responses, compared to a mode of 2 pure human (H) responses. At age 8, these content variables are 8 and 1, respectively. By age 12, the modal A response is down to 7, with pure human increasing to 5.

This pattern would seem to correspond to the child’s increasing awareness and interest in social roles and interaction. However, in an earlier comprehensive review of empirical Rorschach literature, Draguns, Haley and Phillips (1968) found contradictory results, and suggest that the relationship between animal content and chronological age or physical maturity is not clear.

The matter of human detail and animal detail (Hd and Ad) responses (reports of only parts of a person or animal), and human-like and animal-like ((H), (Hd), (A), (Ad)) responses is also important in evaluating the response record. Human- and animal-like perceptions (such as fairies, dragons, ghosts and other fantastic creatures) are viewed as being produced by subjects who are more withdrawn and rely upon the products of imagination more than those who respond with non-parenthesized content. Thus, each animal-like response is seen as being more regressed and
less connected to the real world.

The interpretation of such responses is not necessarily negative, however; it is clearly adaptive for a child, who is just learning to subvert his/her id desires to the regulation of ego and superego controls. In reporting perceptions of fantastic human-like characters, such as wizards, witches, trolls, et cetera the child is identifying with more powerful figures in an adaptively defensive fashion. According to Siegel (1987), the inclusion of and identification with such fantastic characters represents the child's defense against reasonable feelings of powerlessness and lack of emotional control. As the child grows older and (hopefully) becomes more effective, the need for such defenses decreases. However, if such processes continue to play a major part in the subject's responses, even as the child approaches maturity, there may be reason for concern about the individual's adjustment to the inescapable demands of social reality. Thus, the concern in most Rorschach scoring systems for the ratio of H and Hd to (H) and (Hd) contents. Subjects who show a greater than average amount of the fantasized content compared to pure content may tend to be somewhat disconnected from the common social reality, leading to difficulties in interpersonal interactions (Exner, 1986). Animal-like content may be considered in the same fashion, yet representing even less conscious strivings and emotions on the part of the subject. The subject who
produces a great deal of animal-like content may be seen as being more regressed in her/his psychosexual development than one who has a record with less animal and more human content. The subject is likely to be less controlled in general, and to act upon impulses with little consideration for the eventual repercussions of such acts. According to Allen (1954), animal content responses represent a less effortful form of response, which may provide the subject with respite from the discomforting perceptions which the stimuli may evoke.

Detail content responses (Hd, Ad, (Ad), (Hd)) have been hypothesized to represent constriction or defensiveness on the part of the subject. (Beck, 1945; Klopfer, 1954). The unwillingness or inability to perceive a complete figure would seem to indicate some type of refusal to consider others as being complete and autonomous beings. Another interpretation may be that the perception of a partial body might signify the failure or refusal of the subject to recognized that whole creatures exist without the permission of the subject. Perhaps the perception of a whole being would threaten to overwhelm the integrity of the unstable ego. As in the case of other contents, the animal and animal-like details represent a lower order of development than their human counterparts, and as such are viewed as being less desirable in the response record.

Projective Drawings
The method of projective drawings is also a frequently used projective technique, being used only slightly less often than the Rorschach (Piotrowski & Keller, 1989). Originally devised by Goodenough (1926) as an intelligence test, the value of drawings created by individuals as a projective expression soon became apparent to clinicians. The use of such tests for revealing useful clinical data, however, has been hotly contested. Hammer (1968) points out that the contradictory results of experimental tests for the relationship between projective drawings and individual character may well be due to examiner variables. Hammer (1968) describes the proper use and interpretation of drawings as requiring a certain artistry, along with an extremely cautious approach to operationally defining important variables.

In an experimental study of clinicians' ratings of human figure drawings for significant diagnostic information, Yama (1990) found that such ratings appeared to involve four essential factors. The first and most powerful factor was one which seemed to reflect cognitive maturity and was related to the ability of the subject to make an accurate, realistic reproduction of a human figure. The author points out that this may be similar to but not identical with the idea of artistic quality, as many drawings which were found to be aesthetically pleasing did not necessarily score highest in developmental quality.
Additional factors, which accounted for much less variance, include those which reflect size and placement of the figure, bizarreness, and a factor described as that of "failure of behavioral control" (p. 231) as evidenced in poorly and rapidly executed drawings. This research suggests that while drawings are of definite clinical usefulness, the specific diagnostic signs which have often been attributed to minor features of a drawing do not seem to be valid.

The Draw-an-Animal test appears to be a natural outgrowth of human figure drawing techniques and is often used in clinical test batteries for children (Magnussen, 1967). Apparently for the same theoretical reasons that the Child's Apperception Test (Murray, 1943) is used, the use of animal figures is related to the observation that children are more able and willing to identify with animals than with human representations. Campo and Vilar (1977) state that the drawing of an animal allows the subject to project and express aspects of his self that would not be manifested as easily as when drawing a human figure, since in some basic bodily functions, such as incorporation, elimination, procreation, and many other physical activities are subjected to greater censure. Moreover, by means of the greater dissociation and displacement allowed by the drawing of an animal, the
possibility of giving free expression to certain impulses and needs, like aggression or dependence, et cetera, also seems to be enhanced. (p. 1)

Campo and Vilar (1977) demonstrate that their method of having the subject draw an animal and then tell a story about the drawing adds significant diagnostic information to clinical assessment, not only in children but adults as well.

In recent years, drawings of animals have been used extensively in examining sex role identification, particularly in differentiating subjects with opposite-sex identification (Fleming, Cohen, Salt, Robinson and Spetz, 1982). In general, however, there has been little empirical research on this particular permutation of projective drawing techniques.

Hypotheses

As a result of experimental manipulation, it was hypothesized that the following results would be observed:

**Hypothesis 1**

Subjects who performed the human figure drawing prior to receiving the Rorschach (Condition 1) would produce significantly more human content than those who drew an animal first and those who did no drawings before the administration of the Rorschach;

**Hypothesis 2**

Subjects who were required to make a drawing of an
animal before the Rorschach (Condition 2) would produce significantly more animal content than the subjects in the other two conditions;

Hypothesis 3

Subjects who did not make projective drawings prior to administration of the Rorschach (Condition 3) would produce significantly less human content than those in Condition 1 and less animal content than the subjects in Condition 2. These expected outcomes were based on the belief that drawing an animal would require the subject to focus on the psychological contents associated with the relatively less-controlled and more unconscious processes. The subjects who drew a person first would appear to be encouraged by the demands of the administrator to produce relatively greater ego-guided material, and thus be prepared to exert more effort to perceive and report more advanced, pro-social material in the Rorschach, resulting in greater human-related contents. The control group, being required to respond to the Rorschach stimuli with no prior influence, should have produced an amount of each content somewhere between the two experimental groups.
CHAPTER II

METHODOLOGY

Subjects

The subjects were thirty-three children, aged 5 to 13, drawn from a community sample in Denton, Texas. Subjects were recruited by contacting the children's parents through a local private school and a local church. Prior to assessment, the subjects' parents completed the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1986) along with a demographic and background information form. Subjects were excluded from the study if any of the CBCL clinical scales were significantly elevated (T > 70). No subjects were excluded by this criterion. Subjects completed a series of personality and intellectual assessment instruments, including the Rorschach Inkblot Test and projective drawings of a person and an animal. Average age of the subjects was 8.3 years (S.D. = 2.4). Average full scale IQ as measured by the Wechsler intelligence scales was 113 (S.D. = 14).

Procedure

The subjects were tested in the University of North Texas Psychology Clinic or at the private school from which some were selected. Subjects completed a battery of psychological tests, with the projective tests administered
under one of three conditions of order of test administration: (1) condition 1, in which the subject was instructed to draw a person, then complete the Rorschach, then draw an animal; (2) condition 2, in which the subject drew the animal before the Rorschach, then the person; and (3) condition 3, in which the subject completed the Rorschach before any projective drawings. Tests were administered by advanced students in a clinical psychology graduate program and by a licensed clinical psychologist. Variables which were examined were composite sum scores of all animal content, including the animal-like or (A, Ad), as well as A and Ad, and all human content (H, Hd, (H) and (Hd)).

Analysis

Data were first examined to determine the similarity of the three experimental groups on basic demographic variables and test responses. A series of analyses of variance (ANOVA) was performed on the three groups, yielding no significant differences among them for number of Rorschach responses, age, and gender composition. The analysis did yield a significant difference for Full Scale IQ ($F = 4.56$, $p = .029$) which was subsequently used as a covariate. Rorschach records were also examined to determine whether the variables of interest (human and animal content) were influenced by response productivity (R; Kalter & Marsden, 1970). The findings suggest that it was not necessary to
control for the effect of number of responses on the variables of interest in this case. Scoring of Rorschach records for animal and human content was performed by two advanced graduate psychology students. Pearson Product-Moment correlations for animal and human content were calculated, yielding an interrater reliability coefficient of .94. Somewhat surprisingly, correlations of age with the animal and human content were nonsignificant, in contradiction to other research findings (Exner, 1986). Response number and quantity of animal and human content were also not found to be correlated with IQ (see Table 1).

Table 1.
Correlations among Selected Variables

<table>
<thead>
<tr>
<th></th>
<th>Animal Content</th>
<th>Human Content</th>
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<th>IQ</th>
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<td>.16</td>
<td>.15</td>
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<td>.27</td>
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<td>Age</td>
<td></td>
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<td>IQ</td>
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Note. No correlations significant at $p \leq .05$

A multivariate analysis of covariance (MANCOVA) was performed to determine whether significant differences existed among the groups for the content variables, with animal and human content sums as the dependent variables and the experimental condition as the grouping factor, using IQ as a covariate. The results showed that the groups did not
differ for the production of animal and human content, with Wilks' Lambda = .819, $F(4, 52) = .374, p > .05$.

Because the data suggested that the distributions underlying the observed number of responses and content variables were not normal, the nonparametric Kruskal-Wallis test was also performed on the groups by animal ($X^2 = .585, p > .05$) and human ($X^2 = .887, p > .05$) content. Results of these analyses were consistent with those of the MANCOVA.
CHAPTER III

DISCUSSION

The results of the analyses do not support the original hypothesis that tasks preceding the administration of the Rorschach would influence the content of the subject's responses. This suggests that the content of the Rorschach record is relatively unaffected by stimuli presented to the subject prior to completing the Rorschach. This finding has a number of implications for the use of the test. If the contrary were true, the clinical interpretation of the Rorschach Inkblot Test (Rorschach, 1921) might be called into question in many instances. The findings support the idea that the test elicits material resulting from relatively stable internal processes of the subject's psychological functions, thus allowing clinicians to make useful interpretations regarding the subject's personality.

The fact that the Rorschach record seems to be unaffected in a significant way by exposure to prior stimuli adds to the clinician's ability to arrange test batteries in ways which may be adapted to individual subjects and the setting in which the testing is conducted. Particularly when working with children, drawing tasks are often employed to establish rapport. The present findings offer confirming evidence for the unspoken clinical assumption that this
practice does not alter the resulting test findings. It seems likely that the apparent robustness of the Rorschach would argue against the ability of other environmental factors such as recent exposure to salient or emotionally arousing material to significantly disturb the projective test results. Similarly, as number of responses was not correlated with test order, the assumption that the Rorschach should be administered later in the battery because earlier tasks would lower the subject’s defensiveness toward the test and thus produce longer, more useful records does not seem to be supported by the present study.

The present findings do not show the same developmental progression of increasing human and decreasing animal content with age which was found by Exner (1990). This may be due to the restricted size of the current sample and its positively skewed distribution of age. It is also possible that, as suggested by Draguns and Haley (1968), the increase of human content and decrease of animal content with increased age is not a universal occurrence.

The present study examined the effect of prior administration of projective drawings on the Rorschach animal and human content in the response records of a community sample of children. The results do not support the hypothesis that prior tests affect the content of the record. It may thus be inferred that the Rorschach Inkblot
Test (Rorschach, 1921) is relatively impervious to the order in which it is administered in a battery. These findings are valuable in that they support the practice of tailoring test batteries to the individual subject in order to maximize the usefulness of the assessment results. The results also support the assumption that the Rorschach elicits responses based upon relatively deep and continuous internal psychological processes, thus producing projected material as hypothesized by numerous clinicians. The developmental progression of Rorschach content described by a number of authors was not found in this study, although the limited sample size may be responsible for this finding. It is possible that other Rorschach variables are more likely to be affected by external stimuli prior to testing, as described by Exner (1986), e.g. inanimate movement or shading. Further study of Rorschach records might prove useful in clinical interpretation of the results.
REFERENCES


Klopfer, B. (1954). *Developments in the Rorschach*


