

1965

## Art and drawings of emotionally disturbed children : a tool for personality evaluation

David Michael Palrang  
*University of Nebraska Medical Center*

This manuscript is historical in nature and may not reflect current medical research and practice. Search [PubMed](#) for current research.

Follow this and additional works at: <https://digitalcommons.unmc.edu/mdtheses>

---

### Recommended Citation

Palrang, David Michael, "Art and drawings of emotionally disturbed children : a tool for personality evaluation" (1965). *MD Theses*. 2796.  
<https://digitalcommons.unmc.edu/mdtheses/2796>

This Thesis is brought to you for free and open access by the Special Collections at DigitalCommons@UNMC. It has been accepted for inclusion in MD Theses by an authorized administrator of DigitalCommons@UNMC. For more information, please contact [digitalcommons@unmc.edu](mailto:digitalcommons@unmc.edu).

THE ART AND DRAWINGS OF EMOTIONALLY DISTURBED CHILDREN:  
A TOOL FOR PERSONALITY EVALUATION

David Michael Palrang

Submitted in Partial Fulfillment for the Degree of  
Doctor of Medicine

College of Medicine, University of Nebraska

March 22, 1965

Omaha, Nebraska

## TABLE OF CONTENTS

Review of the Literature.....	1
History of Art and Drawing in Relation to the Emotionally Disturbed.....	1
Value of Art in Psychotherapy.....	4
Projective Drawings.....	8
Interpretation of Projective Drawings.....	12
The Drawings of Children.....	15
The Draw-A-Person Test.....	22
A. Estimation of intelligence.....	22
B. Personality evaluation.....	23
The House-Tree-Person Test.....	26
Case Summary, R. W., 9 1/2 years old.....	29
House-Tree-Person Figure 1-12.....	33
Post-Drawing Interrogation Response.....	45
Analysis of the House-Tree-Person Drawings.....	49
Summary.....	54
Conclusions.....	56
Acknowledgement.....	57
References.....	58

HISTORY OF ART AND DRAWINGS IN RELATION  
TO THE EMOTIONALLY DISTURBED

Psychological interest in the drawings of children dates from the work of Cooke, (33) in 1885, and that of Ricci, (102) in 1887. It was soon recognized that drawings of young children are very different psychologically from those done by adults, as expressed by the frequently encountered statement:

"The child draws that he knows,  
rather than what he sees." (42)

Schuyten, (109) in 1904, attempted one of the earliest attempts at the construction of a purely objective scale of achievement using the human figure as the subject. He had hoped to establish a standard of excellence for each age but was not successful.

Prinzhorn, (100) in 1912, showed that drawings made by adult patients suffering from different classes of mental diseases show characteristic differences from each other as well as from the drawings of normals. The bizarre and often highly artistic productions of the emotionally disturbed have led many investigators to attempt to classify graphic features common to particular psychiatric categories. Although their reports were largely descriptive, Simon, (111) in 1876, and Lombroso, (72) in 1895, helped to establish criteria for the distinguishing between different psychotic disease syndromes. The analysis of "insane" art provided the material for the early publications on psychotic art. These early publications

usually lacked clinical orientation and were unconcerned with the possibilities of psychotherapy.

Although the literature records many efforts to classify drawing characteristics in accordance with psychiatric groupings, Anastasi and Foley (6-11) were forced to conclude from their extensive review of the literature that only in extreme mental disorders could differentiations be made through drawings. Their reports, however, dealt mainly with adults.

In 1906, Mohr (85) made a valuable contribution to the understanding of psychotic art by developing a variety of drawing tests which were administered both before and after the onset of disease. He recognized that:

"Drawings as a means of expression serve as an indication of inner happenings." (95)

Kraepelin, (62) in 1909, Jaspers, (58) in 1913, and Aschaffenburg, (14) in 1915, became the precursors of the modern psychiatrists and psychologists who have since developed important projective technics applicable to normal, neurotic and psychotic patients. Schilder, (103) in 1918, Pfister, (98) in 1923, and Pfeifer, (99) in 1925, were the first to apply the principles of the psychoanalytic interpretation of dreams to the art productions of psychotic and neurotic patients. These studies, however, tended to be exploratory rather than therapeutic.

Beginning about 1920, Lewis (69) was the first psychiatrist to employ the analysis of patients' art productions as a regular

and essential adjunct to psychotherapy. He stated that:

"All art is basically a confession and is created largely from unconscious motives, the producer creating the world according to his own image." (77)

In spite of the fact that many clinical workers have expressed enthusiasm for drawings because of the insight and information to be gained from them as an adjunct to other methods of clinical investigation or treatment or when other methods of investigation fail, drawing as an instrument of comprehensive personality analysis has not been developed. Rather, the work done in the field of drawing interpretation has been limited to the clarification of specific problems pertaining to individual cases, to consideration of structural or formal features (i.e., placement, size, etc.), and to the enumeration of isolated features common to special groups.

Most of the literature on the art of the abnormal has to do with the art of schizophrenics. This is principally because a greater number of these patients are interested in drawing and because their drawings seem to be more distinctive, more clearly set apart from those of normals than are those of other clinical groups. The drawings of the schizophrenic are of special interest, too, since this is the only form of functional mental disease that occurs in numbers great enough to be appreciable during the years of later childhood and adolescence. Inasmuch as true psychotic states (other than schizophrenia) are rare before the latter part of

the adolescent period, the drawings of psychotic children are but scantily represented in the literature. However, particularly in the case of children, studies of those suffering from some form of brain damage (secondary to accident or disease), who may or may not have a superimposed emotional disturbance, are coming to occupy an important place in the literature.

There has also been considerable attention in the literature given to the relationship of drawing to intellectual ability in the young child. (41-43, 46, 53, 96, 112, and 118)

Wolff (119) and Harms (55) among others have contributed significantly to the understanding of expressive movement in graphic productions. Alschuler and Hattwick (4) have advanced the psychological appreciation of children's paintings, while Bender (19-24) and Despert (36,37) have pioneered in the psychological interpretation of the art of emotionally disturbed children.

Perhaps the most prominent contemporary investigator in the field of drawing analysis is Karen Machover, whose Personality Projection in the Drawing of the Human Figure, (77) published in 1949, has stimulated much interest and investigation in this field.

#### VALUE OF ART IN PSYCHOTHERAPY

Consideration is given here to the various ways in which it has been suggested that art (with reference here limited to drawing and **painting**) may be employed in an attempt to understand and work

with the emotionally disturbed, especially children. Many present-day psychologists and psychiatrists believe that the drawings and paintings of children serve to reveal their feelings and desires. They feel that children are able to express not only their needs and emotions dominant at the time of artistic production, but also more deep-seated and permanent personality characteristics. (43) From their study of psychotic subjects, Brown and Goiten (27) concluded that when a normal person's drawing fits a particular abnormal category, his personality will show trends intermediate between the normal and the non-normal which fit that psychiatric group.

In his work with "mentally diseased children" noting that as juveniles they had a natural inability to express themselves in addition to the fact that as psychopaths they were still further restricted, Harms (54) experimented with the drawings and paintings of normal as well as abnormal children with the aim of developing a systematic means of using children's art diagnostically. He states that he saw things painted

"....of which even had the children been fully conscious, they would never have been able to say **with words,**"

Similarly, Williams (118) concluded from his study of the drawings of maladjusted children that conflicts and desires are frequently revealed in drawings which could not be elicited by other methods.

Appel (13) described using drawings as a means of securing free verbal expression from children during the course of a psychiatric interview by alternately drawing with the children and gradually structuring the conversation so as to touch upon topics which normally invoke great resistance.

Machover (79) found that to many inhibited, shy or frustrated children drawings were a direct and pleasurable form of communication that didn't involve the painful necessity of verbal and social interplay with an adult. She also noted that drawings eased the tension and embarrassment of many adults who felt uncomfortable in the presence of the children.

In addition to the investigative and tension-reducing potential of drawing and painting, Bender (23) and Despert (36) noted the value to the emotionally disturbed child of the actual act of expressing the motor impulse and expressing instinctual impulses (i.e., aggressive and sexual drives) in the form of artistic productions. To this Bender added the value of group-drawing with other children and the production of drawings which reveal the fantasies and the unconscious life of the child, not only to the therapist, but also to the child.

Drawing as a therapeutic technic with emotionally mal-adjusted children has been the subject of a number of studies. This theory assumes that drawing serves as a "mental catharsis" whereby the child works out his difficulties. (43) This was investigated

by Naumberg, (87-95) in particular, who as the leading exponent of this point of view, illustrates her theories in a series of detailed case studies. In each of these cases she describes in detail the stages in drawing by means of which the disturbed children (and adults) exhibited their progress toward recovery. Naumberg believes that such progress can be readily observed by one who is skilled in reading the signs. The reverse of this process is seen in the perception-distortion accompanying the onset of schizophrenia which is graphically illustrated in a series of remarkable cat paintings by a talented early twentieth-century illustrator, Louis Wain. (32)

Following intensive therapy, one of Naumberg's twenty-three year-old patients said:

"I realize now my painting had often expressed problems before I knew what they were saying" (95)

Naumberg feels that art therapy has the advantages over the usual verbal free-association technics in that it intensifies the therapeutic process because it is more difficult to be evasive graphically than verbally. The patient is also thought to be less aware of the meaning of symbols used in his art productions than of the meaning of his words, and personality traits are more readily and clearly displayed when the patient is engaged in creative rather than routine, unoriginal work.

Rambert (101) in summarizing the value of spontaneous art says:

"These drawings are not only a means of expression but facilitate the conscious realization of conflicts. They allow one to penetrate deeply into the child's unconsciousness; they encourage abreaction of emotion, and permit a surprising catharsis; they also indicate the attempts at the sublimation of instinctive tendencies."

#### PROJECTIVE DRAWINGS

The term "projection" was first introduced by Freud (40) as early as 1894 in his paper "The Anxiety Neurosis". Projection is defined as "that psychological <sup>dynamism</sup> ~~dynamism~~ by which one attributes qualities to the environment (people, other organisms, things)". Thus, "projection" in the Freudian sense is a defense mechanism. Projection is unconscious and is not communicated to others and thus represents a false perception in the person himself. The term "projective techniques", however, has acquired broad and undifferentiated meanings. Projective tests, as such, test not only projection but practically all conceivable mental mechanisms, both defensive and expressive. (12) Goodenough and Harris (43) feel that although "projective tests" were developed prior to 1939 and that practical use of children's drawings began long before that time, the underlying theory upon which earlier studies were based waited for Frank (39) who stated the first explicit definition and rationale of projective testing. As explained by Mayman and Schafer (82) there are three necessary principles or propositions underlying projective testing:

- "1. Projective testing conceives of the personality as a configuration of interrelated processes rather than as a check-list of abilities or traits.
2. The personality so studied is viewed as a relatively stable configuration of dynamic processes organized around the needs, feelings, and personal experiences of an individual, and serving to maintain and defend his private world, actively molds the present internal and external pressures in the light of past experiences.
3. An individual patterns his personal productions with the dispositions of his active personality matrix".

The early workers in the field of projective drawings were Paul Schilder (103-106), and later Laretta Bender, (19-24) John Buck, (29,30) and Karen Machover. (77-80) Schilder introduced the concept of "body image", in relation to which the importance of art in diagnosis and therapy is emphasized. From these early investigators, the concept of "body image" has evolved: "the individual's inner conception of his own body and its functions in the social and physical world, and its relation to the motility phenomena". (50) According to this concept, "each of us carries about in his psychic apparatus an image, physical in structure and largely unconscious of the kind of person he is". (67)

In 1926 Florence Goodenough devised an intelligence scale based principally on the number of details put into the drawing of a man. (41) She and other workers in the field (19, 21, 53, 77-79, 108, and 112) soon became aware of the fact that the test was tapping personality factors in addition to intellectual capabilities.

The concept of self-portraiture in art has been recognized for hundreds of years. Leonardo Da Vinci is seen to have observed the process of projection when he noted that:

"One who drew or painted is inclined to lend to the figures he renders his own bodily experiences, if he is not protected against this by long study". (50)

Other artists, too, have been aware of this. Elbert Hubbard observed:

"When an artist paints a portrait, he paints two, himself and the sitter". (50)

Alfred Tunnell commented:

"The artist does not see things as they are, but as he is". (50)

In recent years, it has been Karen Machover (77) in particular who has been most interested in the relationship between the figure drawn and the personality of the artist. She writes that when asked to do specifically, the drawing of a person, in involving a projection of the body image, provides a natural vehicle for the expression of one's body needs and conflicts. Her interpretation of such drawings is derived from her basic assumption that the human figure drawn by an individual who is directed to "draw a person" relates intimately to the impulses, anxieties, conflicts, and compensations characteristic of that individual. In some sense, the figure drawn is the person, and the paper corresponds to the environment.

Hammer (50) expands this idea when he states that the drawing of a person tends to elicit a "self-portrait, an ideal-self", and a depiction of one's perception of significant others (parents, siblings, etc.).

Hammer points out that not all figure drawings are felt to be self-portraits, for a figure drawing may at times represent significant people in one's environment and:

"Children are...more prone than adult subjects to depict parental figures in their figure drawings."

At times, a "fused image of self and others" may be seen. He adds that children "almost invariably" represent parental figures in their drawings and that such father-or mother-figures may predict the traits which the child incorporates into his personality as demonstrated in re-test drawings made years later. In this manner, he feels:

"Projective drawings tend to reveal the felt self, the ideal self, and - one is tempted to say - the future self."

The child's drawing of his family may also show how he feels concerning his psychological status in that group.

Hammer feels that the interpretation of projective drawings rests upon the theoretical postulates that man tends to view the world in an anthropomorphic manner, the core of which view is the mechanism of projection. Distortions are felt to enter into the process of projection to the extent to which the projection has a defensive function (in the Freudian sense).

In an attempt to evaluate the personality of the artist via his drawings, a number of projective drawing procedures have been developed. Members of the projective drawing family are: Abrams's Draw-A-Person-In-The-Rain; Schwartz's Draw-An-Animal Test; Caligor's Eight-Card-Redrawing Test; Hulse's Draw-A-Family Procedure; Harrower's Unpleasant-Concept Test; Kinget's Drawing-Completion Test; and also the analysis of free doodles.

Perhaps the most widely used device is Machover's Drawing-A-Person technique. The popularity of the individual techniques varies with different clinical investigators.

Both Machover's Draw-A-Person procedure and Buck's House-Tree-Person Test were born as an outcropping of intelligence scales. Specifically, Florence Goodenough's 1927 tool for appraising children's intelligence launched Machover into the field of personality evaluation, whereas Buck's procedure was developed from an intelligence scale that he was working with when Wechsler introduced his now famous intelligence test. Machover and Buck are the chief architects and the most eloquent spokesmen of the projective drawing field.

#### INTERPRETATION OF PROJECTIVE DRAWINGS

Psychologically oriented studies of artistic productions can be classified under three major headings: (1) those designed chiefly for appraisal of artistic merit; (2) those studies of the

Draw-A-Man technique; and (3) methods of observing, recording, classifying, and evaluating children's work, and of scaling art products objectively to learn about the personality or abilities of the artists. (43)

Levy (67) feels that every drawing, symptom, fantasy or act has a history out of which it is produced and that this history is a "dynamic, organized field of vectors". The drawing or symbol in a given case is produced by a unique field, but the same drawing or symbol in another case may be the resultant of a different field. The field which produces a particular drawing or symbol is "layered" or multidimensional. He states that Freud felt that any given symbol could be produced by 57 different combinations of circumstances. Whereas the psychodynamics in one instance may produce a particular drawing symbol, the same symbol may be lacking or a contra-symbol may be produced in a different instance. A drawing or symbol is economic and over-determined, and does not necessarily have the same origin in one individual as in another.

Rambert (101) states that to understand a child's drawing, it is necessary to be initiated:

"Not only to his logic but also into his symbolism... we would never be able to understand a child's drawings if he did not explain them".

Goodenough and Harris (43) question whether the symbolic language of children is universal and speculate that it may differ

from one child to another, in which case only generalizations in terms of principles rather than specific symbols would be possible. Schilder (104) objects to the use of the word "symbol" as applied to the majority of the children's drawings. The term is appropriate, he contends, only when the sign or symbol is used as a means of conveying a meaning distinct from the manifest content. He maintains that most children's drawings are overt attempts to depict reality and become covert or symbolic only when the normal expression is blocked. Bender (25) adds that symbols, in the case of children, are "danger signals on dangerous points" of the developmental process **concerning** the adaptation of the child to the world. Symbols will occur only when the child is afraid to "live out his uninterrupted or forbidden drives".

Hammer (50) feels that the interpretation of projective drawings rests upon the following foundation stones:

- "1. The use of common psychoanalytical and folklore meanings of symbols.
2. Clinical experience with mechanisms of displacement and substitution as well as a wide range of pathological phenomena (e.g., conversion symptoms, obsessions, compulsions, etc.).
3. Unraveling of the symbolization employed in the drawings by utilizing the patient's associations.
4. Empirical evidence with previous patient's drawings.
5. Detection of the more subtle symbolism in the drawing of non-psychotics from an understanding of the frank flooding of symbolization onto the drawing page by psychotics.

6. Correlating the clinical picture with projective drawings made at the same time as and during the course of therapy at different intervals.
7. Internal consistency between one drawing and another, between drawings and other technics in the projective battery, and between drawings and the case history.
8. Lastly and most importantly, experimental studies".

Goldstein (44) feels that figure drawing interpretations still have their basic roots in a rather intuitive procedure based partially on general clinical experience and particularly on a kind of figure drawing lore.

#### THE DRAWINGS OF CHILDREN

Goodenough and Harris (13) state that the :

"Large body of art of the abnormal leads directly to the art of childhood, for the psychotic adult was once a child, who, in all likelihood, drew pictures".

As far as children are concerned, however, there is little evidence in the literature beyond that of selected case histories. The drawings made by these children may or may not be representative of those made by others whose behavior is similar. Drawings of a like type may be equally common among children who show no indications of the behavior such drawings have been assumed by symbolize. Many of the reputedly abnormal features in the drawings of single children or of small selected groups lose their apparent significance when the age and sex of the subject and the conditions under which the drawings were made become known. (79)

Although there is much to suggest that children's drawings provide significant clues for personality diagnosis and evaluation, there is at the present time no completely developed characterological system based on this evidence. (77)

Age is known to be an important factor determining a child's drawing. Mott (86) reported that the drawings of children between 4 and 8 years of age are "knowledge" drawings in that they are descriptions of objects according as the impression of them are more or less clear in the child's mind.

Paul Schilder (104) noted that from the earliest stages, children show an overwhelming interest in the human face. The child usually draws by the age of three or four years, scribbling, making loops and criss-cross lines. An incomplete oval and a circle soon emerge. Later, the circle is combined with a straight line and a primitive drawing of a human figure appears.

Machover points out that a child of three or four years will often draw a large head, perhaps with appendages, as a completed representation of a person. The appearance of legs and arms may be seen in many children's drawings before the body. Whereas a normal child may offer a head as a completed person, he will never give an isolated trunk, neck, arms or legs as representing a full person. Fingers, as a rule, enter into children's drawings before the hands do, and are commonly petal or grape-like representations. (77)

Halpern (48) noted that in their earliest drawings, children (3 to 4 years old) represent the drawn person as consisting largely of a head and limbs, often inappropriately placed, and little else. The body, when represented, is rarely more than a single line. As the child grows older, the body is generally represented by a large circle or oval, which is often as large as the head. Rarely does a child indicate shoulders or neck before the age of eight. Until the age of 5 it is not unusual for the arms to be treated as extensions of the head rather than of the body, and by 6 years this tendency usually disappears. One of the most consistent findings in the drawings of 4 and 5 year olds is the appearance of a large dot in the center of the body, the navel. By the time the child is 6 the navel disappears, but his dependency needs are not yet ready to give up his tie to the mother figure. Instead, the navel is replaced by a row of buttons. These buttons are common in the drawings of children up to about eight years of age. Fingers and hands sometimes appear as early as five and one-half to six years of age. Feet tend to appear somewhat later than fingers. Two-dimensional arms and legs occur usually by age eight. Sometime during the eight to ten year period, the segmented nature of the figure which characterized the productions of very young children gives way to an awareness of the body as a unit rather than a series of parts added to one another.

The hypothesis that children proceed from the whole to the parts was partially confirmed by Barnhart (17) who noted that chiefly the older children began with a broad outline and later filled in the details whereas the younger children more frequently completed each detail separately before passing on to the next.

Kobayashi (63) and Martin (81) both found that with increasing age there is an increasing frequency to perceive an object or figure as a differentiated whole, rather than as a conglomeration of parts.

For most children 5 years of age or older, there is an awareness of some differences between the sexes. This awareness is usually reflected in their drawings by the presence or absence of a skirt or the length of the hair. Not until pre-puberty or puberty, however, is there likely to be any recognition of the difference in body form. (48)

Later, the child may give up all forms of creative activity or he may express his conflicts and confusion (when his self-confidence is shaken by contrast between his inner and outer worlds) by the character of his art productions. Barchilon (15) feels that many children lose their artistic spontaneity before the age of 10 years under the combined impact of further growth, the development of more complex associative patterns, inhibitions, and "education" which is all too unhappily a renunciation of spontaneous learning

and invention knowledge in favor of a passive acceptance of the knowledge which parents, educators, and society impose upon the child.

Williams (118) reported that children's drawings follow similar stages of development and that after the age of 10 years the intellectual factor lessens and drawings become more representative of special abilities. After 12 years of age, when artistic ability is manifested, there is no close correlation between drawing ability and intellectual ability.

Goodenough (42) observed significant differences between the drawings obtained from boys and girls. Girls were noted to draw larger heads, shorter arms, smaller hands, shorter legs, and smaller feet than boys.

Bender (23) found that children with severe body defects often depict this defect in their drawings of a person.

Hammer (50) noted that within the normal range, children (and adolescents) tend to draw themselves as more glamorous, forceful, or better and older than they actually are. They put into the drawn picture a promise of what they desire.

Alschuler and Hatwick (4) found that children who drew with heavy strokes were usually more assertive than other children; those who centered their work on the drawing page tended to show more self-directed, self-centered and more emotional behavior than

other children. Children who did off-center work tended to show more uncontrolled, dependent qualities.

Levy (66) reported that children whose drawings are placed in the upper half of the drawing sheet usually have high standards of achievement. However, Weider and Noller (117) found that the youngest children in an elementary school preferred the upper left quadrant, and as they progressed from first to eighth grade, they gradually moved their drawings until the normative placement was just about page center for the eighth grade children.

Despert (36) concluded that the drawings of psychotic children show evidence of regression (as seen by the predominance of characteristics belonging to earlier developmental levels). Whereas the drawings of neurotic and behavior problem children show no such evidence of regression, the ideoaffective content of the theme reveals the child's underlying conflict.

Gunzburg (46) in studying the drawings of subnormal (mean I.Q. 64) children found significant differences in the execution and conception of the drawings between boys and girls. Williams (118) noted that the drawings of bright children differ from those of dull children in such matters as number of items, correctness of relation to parts, better proportion and control of finer movements as shown by regularity of lines.

In comparing the drawings of adult defectives and normal children of similar intelligence, Earl (38) found that defectives

excelled in detail but are markedly deficient in correctness of proportion, spatial orientation, and that their drawings displayed a certain incoherence not noted in the normal children's drawings.

Studying details, Beck (18) found that the inclusion of details is to some extent a developmental process which seemingly matures about the age of six insofar as essential details are concerned, and cautioned against making any interpretation with children below the age of 6 years.

Ames (5) found that children under the age of five depicted more details when adding to an incomplete figure than when told merely to draw a man; the reverse was not true with children over five.

Israelite (57) found that defectives of the same mental age surpassed normal children in respect to the number of details, whereas the normals excelled on items involving the correct organization and proportion of the parts. Earl (38) likewise found that retarded children showed more details than did normal children, but their sense of proportion was reportedly very poor.

In their review of the literature prior to 1934, Hurlock and Thompson (56) concluded:

- "1. The tendency to perceive the specific rather than the general increases with age.
2. The tendency to perceive background and color placement increases with age, and to a lesser degree with intelligence.

3. The tendency to perceive associated objects and design increases with age, but shows little relationship to intelligence.
4. The tendency to perceive details increases with age and with intelligence.
5. The accuracy of perceptions increases with age, and to a lesser degree, with intelligence.
6. As perceptions become more discriminating in higher age levels, confidence in the ability to draw decreases.
7. The ability to give artistic expression through drawing shows little relationship to age or intelligence.
8. Between the ages of 4 1/2 and 8 1/2 years, inclusively, the ability for accurate and detailed perception shows a more constant relationship to chronological age than to intelligence.

#### THE DRAW-A-PERSON TEST

##### A. Estimation of Intelligence

Even before the publication of the Goodenough Draw-A-Man Test in 1926, most of those who had investigated mental development had come to realize that indications of a child's mental level could be observed in his drawings.

Repeated studies have since supported the opinion that the Goodenough technique, based on the presence or absence of specific details in the drawing of a person, is a ~~serviceable but crude~~ measure of general intelligence when used with children of reasonably similar cultural background and who are equally motivated to do well.

It should be noted, however, that significant gains in intelligence (as reported by I.Q.) have been reported on the second drawing after an interval of a few months and that the procedure is not free from the influence of experience. (76)

#### B. Personality Evaluation

In the course of routine administration of the Goodenough procedure, it became clear to many psychologists that children who earned the same Goodenough rating most often exhibited different personalities and patterns of intelligence, and that many children of similar intelligence (as measured by other tests) had grossly different I.Q. (Intelligence Quotient) levels as determined from their drawings. This offered compelling evidence that the measurement of intelligence on such a vital unit as the body image was only secondary to understanding the complexity of body projection in a dynamic sense. (77)

The use of the human figure drawing as a means of evaluating personality and as a tool for diagnosis when working with emotionally disturbed individuals is a subject which has received considerable attention in the past 15 years. Interest stems largely from the hypothesis put forth by Karen Machover in her Personality Projection in the Drawing of the Human Figure in 1949. Her analytical principles resulted from her intimate contact and work with a wide variety of clinical material which she gathered in clinics and hospitals for

mental observation over a period of many years. Her Draw-A-Person assessment of personality has since become an instrument used routinely by many clinical psychologists.

Noting that the work done prior to 1939 in the field of drawing interpretation had been limited to the clarification of particular problems relating to individual cases, to the consideration of formal or structural features and to the enumeration of isolated features common to special groups rather than to the codification of principles of interpretation encompassing the whole range of personality analysis, Machover (77) put forth her tentative principles of analysis. These principles of interpretation had evolved slowly out of the study of particular drawing traits, in correlation with the clinical history of the subjects, and supplementary test data along with psychiatric and psychologic opinion. Stressing that drawing analysis had "the potential of becoming a refined instrument of personality investigation"; she offered drawing analysis as a valuable supplementary tool, used most fruitfully when interpreted in the light of the other available data (i.e., case history, etc.). She cautioned against the mechanical use of a "check-list of signs" and emphasized that the clinical use of her proposed hypotheses were best reserved for the advanced worker. While issuing a directive for refinement, validation, and correction of her basic principles, she encouraged the advanced

clinician to feel free to extract from the graphic product what the subject has put into it and to interpret directly aspects which reflect real life problems and behavior of the individual who is drawing.

It is not within the scope of this paper to list here Machover's criteria of figure-drawing analysis which are to be found in her publications. (91-94)

One asks how valuable is the drawing of the human figure as a means of evaluation or diagnosis when working with the emotionally disturbed. Levy (67) rather pessimistically writes that projective figure drawing interpretation is at the present time without sufficient experimental validation and often misleads the naive, reckless and unwary. Machover (77) optimistically felt, in 1949, that enough was known at that time about the drawing expression of clinically homogenous groups to be of value in differential diagnosis. She added, however, the state of systematization being what it was at the time, that it was:

"safest to focus on the psychological meaning of specific drawing traits, in the context of their inter-relation, rather than to attempt to set down rigid formulae for guidance in interpretation".

She warned the inexperienced worker against making dogmatic use of fragmentary knowledge and called for further studies to validate her tenents concerning specific drawing features.

In his comprehensive review of the literature, Swensen (115) analyzed all of the research during the eight years following Machover's publication in 1949. He concluded that her hypotheses concerning the Draw-A-Person interpretation had "seldom been supported" by the research reviewed and that more of the evidence directly contradicted her hypotheses rather than supported them. He added, however, that evidence to the contrary, many clinicians would continue to routinely use the test and conceded that it was a valuable tool. He felt that the popularity of the procedure with many workers was most likely due to the fact that the test, in a few particular cases which impressed the individual clinician, did provide an indication of the nature of the individual's problem. Some evidence, it was reported, did support the use of the Draw-A-Person test as a rough screening device and as a gross indicator of the "level of adjustment". This impression is also reported by Albee and Hamlin. (2, 3)

Swensen suggested that further research on the Draw-A-Person procedure concentrate on tests of specific hypotheses of Machover, with emphasis given to the investigation of patterns of signs rather than to studying particular signs individually.

#### THE HOUSE-TREE-PERSON TEST

John Buck (29) devised a projective drawing procedure (the H-T-P Test) in which the subject is asked to draw a house, a tree

and then a person as well as he can. These items were chosen because:

- "1. They are items familiar to even the comparatively young child;
2. They were found to be more willingly accepted as objects to be drawn by subjects of all ages than other items suggested; and
3. They appear to stimulate more frank and free verbalizations than did other items".

House. - The house is felt to provide clues to the subject's attitude toward his family and/or his interpretation of his family's feelings towards him. (60) It arouses within him associations concerning home-life, and in children in particular, it has been felt to reveal attitudes concerning the home situation and relationships towards parents and siblings. (50)

Tree. - The drawing of the Tree appears to reflect the subject's relatively deeper and more unconscious feelings concerning himself. The tree has been found to be a more suitable symbol for the projection of deeper personality feelings about the self, and taps more basic and long-standing feelings. In some instances, the tree has been used to symbolically represent the self. Of the three (House, Tree, Person), the Tree is the most likely to convey the person's felt image of himself and his relationship to his environment. (60) Buck feels that the trunk represents the subject's "ego strength", the branches depict his ability to derive satisfaction

from his environment, and the organization as a whole reflects the subject's feeling of intra-personal balance.

Person. - The Person is felt to serve as a vehicle for conveying the subject's more conscious (than the Tree) view of himself and his environment. By drawing the Person last, the subject is led gradually to a "closer to home" self-portrait. The drawing of the Person is felt to elicit principally three types: a self-portrait, an ideal-self, and a depiction of others who figure significantly in the subject's environment (parents, siblings, etc.). (50) Children especially are prone to depict parental figures in their Person drawings.

Hammer (50) writes that the achromatic (pencil) and chromatic (crayon) H-T-P drawings actually tap somewhat different levels of personality. The chromatic series is felt to penetrate the defenses or "lay bare a deeper level of personality" than the achromatic set of drawings; thus providing a richer personality evaluation.

Following the drawing of the House, Tree and Person, the subject is asked a series of questions (Post-Drawing Interrogation) concerning the drawings. These questions are designed to further elicit the subject's feelings concerning himself in his environment.

#### CASE SUMMARY

Referral. - This 9 1/2 year old, white boy was referred to the Nebraska Psychiatric Institute for evaluation by local school authorities for failure to do well in school.

Mother. - The patient's mother, 27 years old, described herself as a "spoiled brat", who, by the age of 12, was domineering, over-weight, shy, sensitive, and book-wormish. She felt that her home life had been unpleasant, being ruled by a domineering Mother and a passive Father. At the age of 16 "to get away from home" she married a highschool classmate. The patient was born when she was 18 years old. Two months following his birth her Air Force husband was transferred to England. She remained in this country for 9 months staying with her maternal grandparents, before rejoining her husband in England where she remained until 1963.

Father. - The patient's real Father is described by the patient's Mother as being somewhat effeminate with interests similar to hers. His aunt and mother were reportedly both "mentally ill and under the care of a psychiatrist". He is described further as having been "heavy handed" and strict (if not brutal) towards the patient, allegedly spanking him prior to the age of 2 months. Two months following the birth of the younger sibling, the Mother divorced her husband because she discovered that he had homosexual tendencies and apparently became involved with an overt homosexual. Following her

divorce she left the two children in the care of babysitters and resumed working. Approximately 9 months later she met the patient's step-father, who was at that time a London stage manager. Following a 6 month courtship, he moved in with her and they were married a year later. He is described as being a "very brilliant person... strong, dependable" and sharing her interests. Following their return to the United States in 1963, he encountered difficulty getting a good position and presently works as a "common lackey" and is quite unhappy.

Development. - The patient's birth and early development are described as being normal up until he was almost 3 years old. At this time he began to exhibit many neurotic traits and signs of regression. He resumed bed-wetting, displayed unreasonable fears, began to have difficulty learning, threw temper tantrums and demonstrated a desire to drink milk from a bottle. This was at the time of the birth of his brother.

At the time of admission to Nebraska Psychiatric Institute (July, 1964) the reason for referral given by the patient's Mother was difficulty in school. She added that she felt the patient had made no progress from the ages 3 to 5 years because "he was living in a woman's world at that time" and was cared for by "cheap baby-sitters" who did little more than provide room and board for the boy. She also related that the patient would rock and bang his head against the sides of the bed "even before he was 3 years of age".

She felt that the patient was insecure, "sensitive and trying to be a perfectionist like myself". He had difficulty getting along with other children, was "overly bossy" and preferred to play with younger children, especially girls. She felt that he tried too hard to please people and that he was overly attached to her, became frustrated easily, and couldn't "keep his mind on the subjects".

School. - In England the patient attended nursery school for 2 years, from age 3-5, where he did not do well. Following poor performance in kindergarten he was evaluated at the Child Guidance Center in London at the age of 5. The mother was told at that time that there was a question of brain damage and that he should be tested at a later date. The patient was further evaluated at Omaha University where he had been referred by the Public School System after failing to do well in an Omaha first grade, which he had previously attended twice in England.

Psychological Testing. - Psychological testing, performed at 8 years 11 months (chronological age) reported the patient to have an I.Q. in the low 60's which correlated with previous test result of 62. The psychologist at that time felt that "intense anxiety" interfered with adequate mental functioning, and that there were many "indications of more intellectual ability" than could be arrived at by the WISC (Wechsler Intelligence Scale for

Children). The psychologist felt that the patient was emotionally disturbed, with little evidence of organic brain damage.

Clinical Course. - On the basis of school, play, ward observations, psychological testing and therapy with individual psychotherapists, it was felt that the patient displayed inappropriate affect, ambivalence, perservation, projection and free-floating fantasy and was at times observed to act very silly and infantile. He was noted to have a short attention span and seemed at times to be preoccupied, possibly with delusions or hallucinations, to a degree that he did actually lose contact with reality. One psychiatrist reported observing catatonic-like rigidity and posturing for as long as 5-15 minutes in play therapy without stimuli and noted that external stimuli could prevent or end such episodes.

Diagnosis: On the basis of the above, together with the history, the patient was felt to demonstrate:

1. Childhood Schizophrenia.
2. Mental Retardation (Secondary to the Schizophrenia).



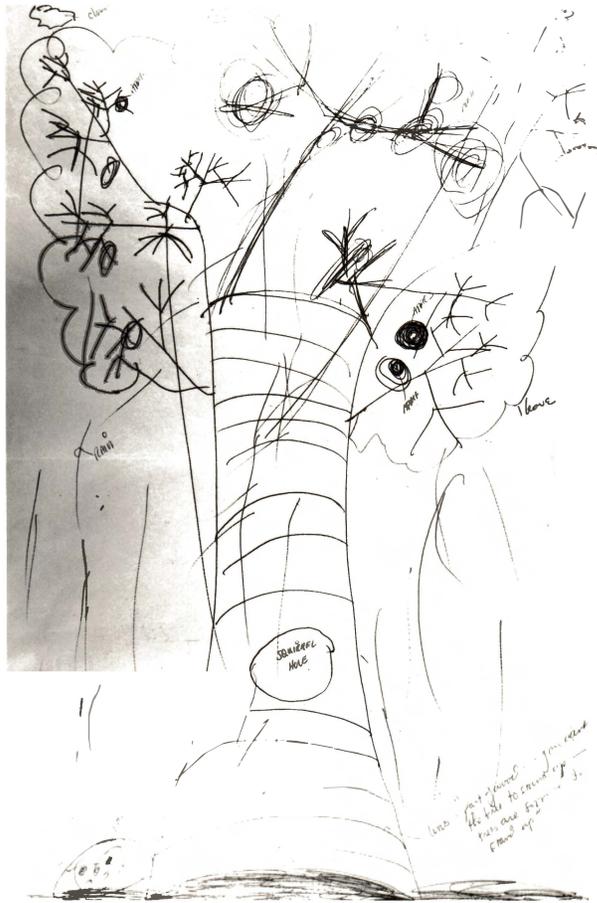


Figure 2. - Achromatic Tree

- apple tree with apples
- ground emphasis
- squirrel hole
- "rain drain"
- horizontal, piled-up trunk structure: "part of wood...you want... want the tree to stand up...trees are supposed to stand up"
- branches one-dimensional, broken; extend directly from two-dimensional trunk, without limbs



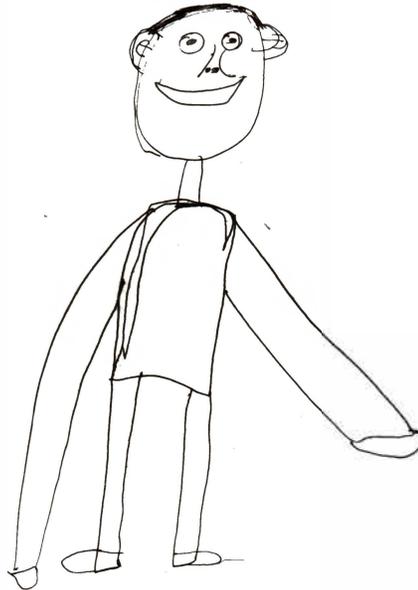


Figure 4. - Achromatic Person

(Opposite Sex)

- rounded shoulders
- long, thin right arm; wide, large left arm
- absence of fingers; hands clubbed, rounded; ear emphasis

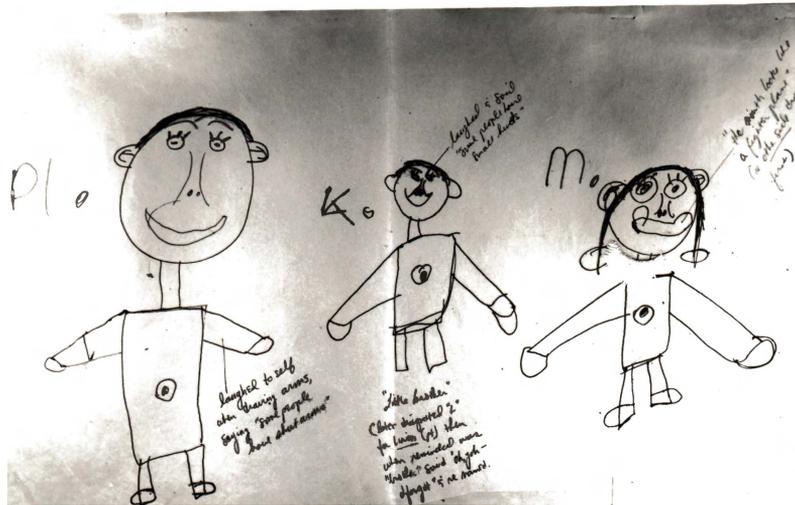


Figure 5. - Achromatic Family

Father

- large head
- eyelashes
- eyebrows
- prominent navel
- short arms and legs  
(laughed to self saying, "Some people have short arms...")

Mother

- prominent navel
- ear emphasis
- long arms (left stronger, larger than right)
- association of mouth to outline of airplane drawn previously (not shown) saying, "The mouth looks like a fighter plane..."

Brother

- small head (laughed saying "Some people have small heads...")
- eyelash emphasis
- prominent navel
- relatively large arms; no feet



Figure 6. - Chromatic House

- essentially the same as Figure 1
- drawn entirely in blue crayon
- prominent "house stander...you don't want the house to fall down do you?"

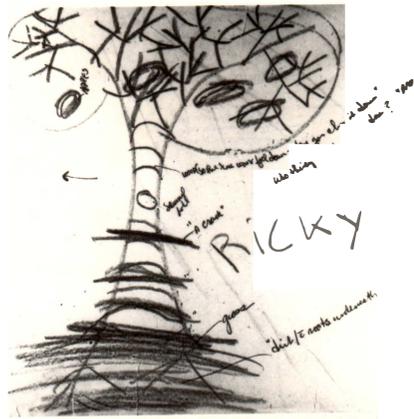


Figure 7. - Chromatic Tree

- essentially the same as Figure 2
- drawn entirely in blue crayon
- "dirt....with roots underneath" showing through
- "wood....so the tree won't fall down....unless you chop it down...."
- (Q. Who is thinking about chopping it down? A. Dad)
- small sun (upper right, yellow crayon)



Figure 8. - Chromatic Person

- essentially the same as Figures 3-5, although simpler
- drawn entirely in brown crayon
- prominent ear emphasis
- left arm larger than right
- rounded shoulders
- navel (drawn after finished picture and completing another;  
added in pencil)
- large, overwhelming sun (yellow)



Figure 9. - Mother

- initially colored hair yellow, then overlaid with black, saying "She doesn't have black hair either...it's brown... black and yellow make brown...."
- heart drawn spontaneously (patient knew heart anatomically on his left and demonstrated this)
- heavily shaded arms (left larger than right)
- labeled "M" for Mother' "L" for "Eleanor", her name; ascribed age 27 to drawing
- drawn in blue (except hair)

NOTE: Figures 9-12 were drawn at a different session than the preceding drawings; all were done with crayon. The patient was offered a box of 8 crayons and requested to draw his mother, his brother, himself, and a robot.

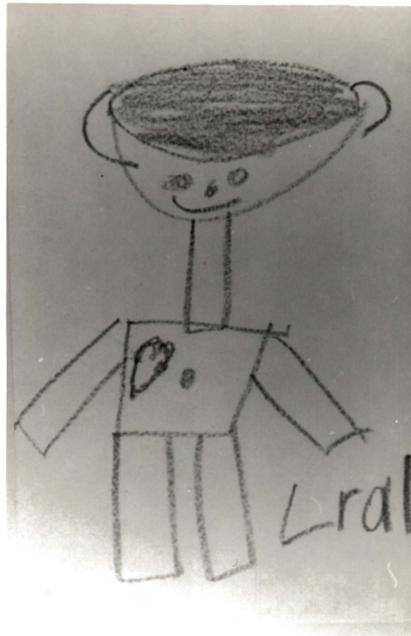


Figure 10. - Brother Karl

- absence of hands, feet
- heart placed on patient's left, drawing's right
- exaggerated, lengthened neck
- stated that Karl had "short arms, longer legs"
- drawn in blue



Figure 11. - Self

- absence of arms
- heart on drawing's right
- prominent navel
- patient noted that the figure was one inch taller than Brother (Figure 10)
- drawn in blue



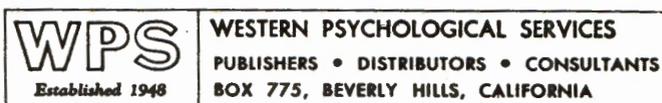
Figure 12. - Monster

- spoke of "monster" and "robot" as being synonymous; asked how to write "monster" and copied when word was written for him; initially reversed "S"
- prominent teeth
- long, claw-like hands (the patient was unable to describe these; referred to them as being able to "rip people apart.....")
- drawn in blue

**CHILDREN'S REVISION  
HOUSE - TREE - PERSON (H-T-P)  
POST-DRAWING INTERROGATION FOLDER**

By  
**ISAAC JOLLES**

Published by



Name \_\_\_\_\_ R. W. \_\_\_\_\_ Sex \_\_\_\_\_ Birthdate \_\_\_\_\_ Age  $9\frac{1}{2}$  Examined \_\_\_\_\_  
School \_\_\_\_\_ Grade \_\_\_\_\_ City \_\_\_\_\_ Date \_\_\_\_\_

- 
- P1. Is that a man, a woman, a boy, or a girl? Man  
P2. How old is he (she)? 26 years old  
P3. Who is he (she)? David\*  
P4. Who is that? I don't know. (Q. Who do you know named David?) A. My Dad. He is 30  
years old and this David is only 26 years old.  
P5. What is he (she) doing? Just standing there  
P6. Where is he (she) doing it? Outside...right by his house.
- 
- T1. What kind of tree is that? Apple  
T2. Where is that tree? California...you won't find very many apples but you'll find a lot  
of apricots.  
T3. About how old is that tree? 12 years  
T4. Is that tree alive? Nope  
T5. A. (If subject says tree is alive:)  
a. What is there about that tree which makes you think it's alive?  
b. Is any part of the tree dead? Which part?  
c. What do you think caused it to die?  
B. (If subject says tree is dead:)  
a. What do you think caused it to die? It's not dying..it's just dead. Yah...the  
way it looks...it couldn't walk.  
b. Will it ever be alive again? Nope. (Q. Why?) Because the roots are dead.
- 

Copyright 1956 by WESTERN PSYCHOLOGICAL SERVICES, Beverly Hills, California

All rights reserved.

Not to be reproduced in whole or in part without written permission of copyright owner.

\*David is the patient's step-father, not his real father.

- 
- H1. Does that house have an upstairs? No stairs at all..but one. (Repeated question) Oh, there's lots of floors.
- H2. Is that your house? Nope (If not:) Whose house is it? It's David's
- H3. Would **you** like to own that house? Nope...not particularly. Why? Because my house has two stairways.. one for the bedroom and one for the basement.
- H4. If you owned that house and could do whatever you liked with it:  
a. Which room would you take for your own? This one (patient pointed to the one previously labeled as his bedroom)  
Why?  
b. Whom would you like to have live in that house with you? Nobody in THAT house... Anyone else? in some other house with me. (Q. With whom?) Patty P. (patient).
- H5. As you look at that house, does it seem to be close by or far away? Far...far away.
- H6. Does it seem above you, below you, or about even with you? I don't know.
- 
- T6. Does that tree look more like a man or a woman to you? Man
- T7. If that tree were a person, which way would that person be facing? Toward me.
- T8. Is that tree by itself or in a group of trees? By itself.
- T9. Looking at that tree, does it seem above you, below you, or about even with you? Even.
- 
- P7. What is he (she) thinking about? What he wants...a Johnny-7 OMA for Christmas. (This is a seven-in-one gun very popular with the children on the ward at NPI before Christmas and the patient had expressed a desire for one a few days previously).
- P8. How does he (she) feel? Why? Pretty good.
- P9. Of what does that Person make you think? If you touch him again you'll get shocked by some electricity..because he has electricity like me. I make electricity sounds like I was a robot. I'd like to be a robot. If I did I'd probably scare somebody.
- P10. Is that person well? Yes
- P11. Is that person happy? Yes...I made a smiling mouth.
- P12. What is the weather like in this picture? Oh, nice. It's sunny out.

- 
- T10. What is the weather like in this picture? Cold.
- T11. What kind of weather do you like best? Hot.
- T12. Is any wind blowing in this picture? Yah.
- T13. Show me which way the wind is blowing? This way (pointing to left side of page; note arrow drawn in).
- T14. What sort of wind is it? Winter time.
- 
- H7. Of what does that house make you think? It's ugly to me..that's what I think...it looks ugly.
- H8. Is that a happy, friendly sort of house? Nope.
- H9. What is the weather like in this picture? Sunny
- H10. Of which person you know does that house make you think? It looks like an apple house (patient laughed to himself). I don't think of anybody. (Question repeated), David.
- H11. Has anyone or anything ever hurt that house? No  
(If so) How?
- H12. (If sun is not drawn, have subject do so.) Suppose this sun were some person you know— who would it be? He doesn't have very much heat, that's why it is going to be cold weather. Not too cold, though, because he's smiling because he has some heat.. not very much. (Question repeated) David.
- 
- T15. (If sun is not drawn, have subject do so.) Suppose this sun were some person you know—who would it be? It's raining out..a LITTLE bit of sun. My Mom.
- T16. Of what does that tree make you think? The apples are going to die.
- T17. Is it a healthy tree? Nope.
- T18. Is it a strong tree? No
- 
- P13. Of which person you know does this person remind you? David...my Dad.  
Why?
- P14. What kind of clothing is this person wearing? None (laughed to self).
- P15. What does that person need most?..Some clothes...

P16. Has anyone ever hurt that person? No

(If so:) a. How?

b. How old was that person when it happened.

P17. (If sun is not drawn, have subject do so.) Suppose that sun were some person you know—who would it be? O.K.....it's going to rain, though, just a little bit. (Began to draw the sun after he drew rain) Now it's going to be a LARGE sun. Now this boy's melting..but not too much because there's not going to be very much sun there..now it will (question) Who does it remind you off? David H....probably my brother.

---

T19. Of which person you know does that tree remind you? A robot

T20. Has anyone or anything ever hurt that tree? No....yah

(If so:) How? By chopping it down.

(Q. When?) Next Winter.

T21. What does that tree need most? Nothing...an apple and roots.

Why?

T22. If this were a person instead of a bird (or another tree or anything else not a part of the tree first drawn) who might it be?

(Repeat this question for the chromatic drawing if it differs from the achromatic drawing.)

T23. (Record responses concerning possible significance of scars, broken or dead branches, or other unusual details.) (Q. How did the squirrel hole get there?) Somebody drilled it.

(Q. Who?) Me..I did. I don't care if it dies or not..we can buy apples; they sell apples but can't sell them too much because nobody likes them.

(Repeat for chromatic drawing if it differs from achromatic drawing.)

---

H13. If this were a person instead of a tree (or a shrub, flower, or any other object not a part of the house itself) who would it be?

(Repeat for chromatic drawing if it differs from achromatic drawing.)

H14. What does that house need most? Nothing. Not a new T.V. or anything, but a robot, like me, I'm a robot.

Why?

H15. Where does that chimney lead to in the house? It just stays on the house.

H16. (Determine which room is represented by each window and the customary occupants of each room.)

(Refer to drawing)

(Repeat for the chromatic drawing if it differs from achromatic drawing.)

## ANALYSIS OF THE HOUSE-TREE-PERSON DRAWINGS

The following is a discussion of those features of the patient's drawings and response to the post-drawing interrogation which are felt to illustrate some of the pathological features of this 9 1/2 year old psychotic boy. These items complement and support the evaluation of this patient which has evolved after eight months of inpatient treatment at the Nebraska Psychiatric Institute, on the basis of ward, school, and play therapy observation as well as history, psychological testing and clinical evaluation by the psychiatrists assigned to this patient.

The criteria for analysis and interpretation have been adapted primarily from Machover, (77) Jolles, (60), Buck (29) and Hammer. (50)

House. Figures 1 & 6. - The thick, billowing smoke suggests an emotionally hot, turbulent home atmosphere with rejection of the House as an unpleasant dwelling place. (This impression is further strengthened by the H-3, H4-b, H-5, H-7, H-8 responses). The downward course of the smoke, an attempt to simultaneously depict both the back and front of the house, the placement of the basement on the second floor, and the omission of the corner wall indicate gross distortion of reality. The corner-placement and height of the windows suggests inaccessibility and withdrawal. The detailing of the roof with window emphasis, and the tall, vertical house suggest

that satisfaction may be sought in fantasy. The large doors suggest an over-dependence, whereas the lock emphasis denotes withdrawal and defensiveness. The fact that the groundline in the achromatic house (Figure 1) is represented by the bottom of the page suggests a basic insecurity in home and/or intimate interpersonal relationships. Evidence of such insecurity is further suggested by the sagging, concave rear wall of the house (noted in both Figures 1 & 6). The "house stander", heavily shaded in the chromatic drawing, (Figure 6) further illustrates this lack of security with possibly an unconscious awareness of ego weakness and a sense of impending collapse.

Tree. Figures 2 & 7. - The T3 response supports the assumption of patient self-identification with the tree. The tree stands alone (T8) in a cold environment in which a Winter wind is blowing (T10, 12 and 14), implying a sense of isolation and abandonment of the patient. The small bit of sun (Figure 7, extreme upper right corner), representing his mother (T15), indicates the patient's feeling of maternal rejection and her withholding of emotional warmth. In contrast to this, the large, overwhelming sun in Figure 8 representing his step-father (P-17) suggests the patient's strong desire for affection from his step-father. The large, broad, two-dimensional trunk suggests a good early development which was ultimately interfered with at an earlier age, as noted by the squirrel hole. A feeling of corruption and decay from

within the patient, rather than from external trauma, is indicated by the T-23 response, although a fear of destruction by his father is noted in the comment made while drawing (Figure 7). The piled-up, horizontal structuring of the trunk indicate an unstable ego, ever-labile to topple (note "a crack") whereas the heavily shaded groundwork and the transparency of the tree roots (Figure 7) further suggests a tenuous hold on reality. The branches are short, one-dimensional, and originate from the trunk directly without limbs, suggesting inability to derive satisfaction from environment. Apple trees (T1) are commonly drawn by children and the apples may represent the self. The patient states that the apples are soon to die (T16); the tree is dead because its roots are dead, and will never live again (T4, T5-b, T23). This is indicative of significant maladjustment and is most prevalent in the drawings of the withdrawn and schizophrenic; it is rarely found in the drawings of those not maladjusted. The "rain-drain" is additional detail which suggests clang association by the patient. The fact that the tree reminds the patient of a robot (T19) and that the patient fantasies himself as a robot (H14) further supports the basic assumption of self-identification with the tree and is indicative of serious detachment from reality and depersonalization by the patient.

Person. Figures 3-5 and 8-12. - Large heads (Figures 3-5, 10 & 11) are commonly drawn by children (especially by 3 and 4 years of age, who may offer the head as a completed representation of a person). The vigorous hair emphasis (Figure 9) in the mother drawing, first represented by yellow (strong hostile attitude) suggests the patient's feelings of female dominance and strength in contrast to the treatment of hair in the male figures (Figures 4, 5, & 8). Female dominance and aggression are strongly indicated by the square-shoulders (Figures 3, 5 & 9), "fighter-plane" mouth association (Figure 5) and the strong, powerful arms (Figures 3, 5 & 9) noted in the female figures. The heavily shaded arms (Figure 9) further emphasize the patient's anxiety when drawing his mothers arms, which represent a means of control and manipulation, and are threatening to the patient. The eyelashes (Figure 5), the rounded, stooped shoulders (Figures 4 & 8) and short (Figure 5), thin (Figure 4 & 8), weak, ineffectual arms illustrate the patient's impression of the male as being submissive and passive, in contrast to the female. Confusion of sexual identification, and possibly dependence on the parent of the opposite sex, is strongly suggested by the fact that when asked to "draw a person" the patient drew a female first (Figure 3), whereas the same sex is generally drawn in 80-90% of cases. The prominent navel emphasis (common in children up to age 5) is strongly indicative of maternal dependency and regression. The almost consistent absence of fingers (and sometimes

hands, Figures 9 & 10) and blunt, rounded hands imply a reluctance by the patient to enter into contact with his environment (although he is aware that there are five fingers, as evidenced by Figure 3). The exaggerated ear emphasis (Figures 3-5, 8 & 10) makes one highly suspicious of an organic ear impairment (not present in this patient) or possibly auditory hallucinations; ears, however, are not uncommon features in the drawings of young children. The representation of the heart (Figures 9, 10 & 11) cannot be overlooked casually, as the graphic representation of internal organs is a strong indication of a psychotic personality. The placement of the heart on the figure's right, (Figures 10, 11) although the patient remarked that the heart is on the left side and demonstrated this by feeling his own heart while drawing Figure 9, suggests a mental age less than the patient's chronological 9 1/2 years. The patient's self-identification with the robot (H-14, Figure 12) indicates ideas of depersonalization and of being a mechanical person with destructive (P-9) and claw-like appendages "to rip people apart" (Figure 12). These features, in addition to the prominent teeth (Figure 12) are indicative of the patient's underlying aggression and hostility as well as being strongly suggestive of psychosis. The limited use of color in the chromatic series suggests an avoidance of emotional stimulation and a reluctance to enter into emotional relationships.

Finally, although the patient's drawings (especially of the human figure) have many features usually found in the drawings of

children younger than the patient, the detailing and the treatment of the subjects as a whole indicate that the patient's intellectual ability is greater than that of a person with an I.Q. in the low 60's as has been determined in this patient by repeated psychological testing. This suggests that the patient's depressed intellectual functioning is secondary to emotional factors rather than to organic factors or primary mental retardation. In addition to the previously mentioned examples, specific features such as eyelash emphasis, association of the female mouth with a fighter bomber, ambivalence (note especially the vacillation in the H-12 and P-17 responses), identification with a robot and ideas of "ripping people apart" are strongly suggestive of a psychotic personality. Thus, from an analysis of this patient's drawings, it is felt that mental retardation secondary to emotional disturbance, probably psychotic, is most likely present.

#### SUMMARY

This paper is concerned with the possibilities offered by projective drawings as a clinical tool for the diagnosis and the evaluation of the emotionally disturbed, particularly children. A brief review of the literature concerning previous interest in the artistic productions of psychiatric patients, some of the proposed advantages of utilizing art and drawings in the psychotherapeutic process, and a discussion of the theory underlying projective drawings and their interpretation is presented.

Emphasis is given to the discussion of two of the more frequently utilized projective drawing tests which have found favor with many clinical psychologists: John Buck's House-Tree-Person Test and Karen Machover's Draw-A-Person Test.

The case study of a 9 1/2 year-old psychotic boy is presented along with twelve of his achromatic and chromatic drawings of the House, Tree and Person. In addition, comments made by the patient while drawing and his responses to the post-drawing interrogation are included.

Those features of the patient's drawing and responses which are felt to correlate with and supplement his clinical evaluation, based on eight months of observation at the Nebraska Psychiatric Institute, are discussed.

On the basis of particular features noted in the patient's drawings and comments, it is felt that the mental retardation (demonstrated by repeated psychological testing) and the abnormal features of this patient's behavior are secondary to an emotional disturbance, and that the patient presents indications of being psychotic.

Finally, projective drawing techniques are felt to be a valuable clinical tool for the evaluation and of diagnosis in emotionally disturbed children as illustrated by the analysis of the drawings of the 9-1/2 year old boy presented in this paper.

## CONCLUSIONS

1. Drawings and art may be of supplemental value in the diagnosis and therapy of emotionally disturbed children.
2. The analysis of drawings and art may elicit aspects of the patient's personality and disturbance which are not observed by other methods of investigation.
3. The analysis of the drawings of the 9 1/2 year old boy presented in this paper indicates a psychotic disturbance which correlates with and substantiates the patient's clinical diagnosis of childhood schizophrenia with secondary mental retardation.

#### ACKNOWLEDGEMENT

The author wishes to express his sincere appreciation and thanks to Dr. Louise Eaton of the Nebraska Psychiatric Institute for her encouragement and advice, and to Dr. Mary Haworth of the Meyer Therapy Center for her help in making this paper possible.

## REFERENCES

1. Abel, T.M. and Sill, J.B., The perceiving and thinking of normal and subnormal adolescents and children of a simple drawing task. *J. Genet. Psychol.*, 54:391-402, 1939.
2. Albee, G.W. and Hamlin, R.M., An investigation of the reliability and validity of judgments of adjustment inferred from drawings. *J. Clin. Psychol.*, 5:389-392, 1949.
3. \_\_\_\_\_, Judgment of adjustment from drawings. The applicability of rating scale methods. *J. Clin. Psychol.*, 6:363-365, 1950.
4. Alschuler, R.H. and Hattwick, L.W., Painting and Personality, A Study of Young Children. 2 vols., Chicago, University of Chicago Press, 1947.
5. Ames, Louise, Free drawing and completion drawing: A comparative study of preschool children. *J. Genet. Psychol.*, 66:161-165, 1945.
6. Anastasi, A. and Foley, J.P., Jr., An analysis of spontaneous drawings by children in different cultures. *J. Appl. Psychol.*, 20:689-726, 1936.
7. \_\_\_\_\_, A survey of the literature on artistic behavior in the abnormal. III. Spontaneous productions. *Psychol. Monogr.*, 52:71, 1940.
8. \_\_\_\_\_, A survey of the literature on artistic behavior in the abnormal. II. Approaches and interrelationships. *Ann. N.Y. Acad. Sci.*, 42:166, 1941.
9. \_\_\_\_\_, A survey of the literature on artistic behavior in the abnormal. II. Historical and theoretical background. *J. Gen. Psychol.*, 25:111-132, 1941.
10. \_\_\_\_\_, A survey of the literature on artistic behavior in the abnormal. IV. Experimental investigations. *J. Gen. Psychol.*, 25:187-237, 1941.
11. \_\_\_\_\_, An experimental study of the drawing behavior of adult psychotics in comparison with that of a normal control group. *J. Exp. Psychol.*, 34:169-194, 1944.

12. Anderson, H.A. and Anderson, G.L., eds., An Introduction to Projective Techniques, New York, Prentice-Hall, Inc., 1951.
13. Appel, K.E., Drawings by children as aids to personality studies. *Amer. J. Orthopsychiat.*, 1:129-144, 1931.
14. Aschaffenburg, G., Allgemeine symptomatologies der psychosen. In handbuch der Psychiatrie Allgem. T., 3te Abt. Leipzig and Vienna; Deutike, 1915. Cited by: Naumberg, M., Psychoneurotic Art: It's Function in Psychotherapy. New York, Grune and Stratton, Inc., 1953.
15. Barchilon, Jose, Development of artistic sytlization: A two year evolution in the drawings of a normal child. *Psychoanal. Study Child.*, 19:256-274, 1964.
16. Barker, A.J. and Mathis, J.K., Drawing characteristics of male homosexuals. *J. Clin. Psychol.*, 9:185-188, 1953.
17. Barnhart, E.N., Development stages in compositional construction in children's drawings. *J. Exp. Educ.*, 11:156-184, 1942.
18. Beck, H.S., A study of the applicability of the H-T-P to children with respect to the drawn house. *J. Clin. Psychol.*, 60:11, 1955.
19. Bender, Lauretta, Art and therapy in the mental disturbances of children. *J. Nerv. Ment. Dis.*, 86:249-263, 1937.
20. \_\_\_\_\_, The Goodenough Test in chronic encephalitis in children. *J. Nerv. Ment. Dis.*, 91:277-286, 1940.
21. \_\_\_\_\_, Schizophrenic Childhood. *Nerv. Child*, 1:138-140, 1942.
22. \_\_\_\_\_, A Dynamic Psychopathology of Childhood. Springfield, Thomas, 1954.
23. \_\_\_\_\_, Childhood Psychiatric Techniques, Springfield, Thomas, 1952.
24. \_\_\_\_\_, Psychopathology of Children with Organic Brain Disorders, Springfield, Thomas, 1956.
25. Bellak, Leopold, The TAT and CAT in Clinical Use, New York, Grune and Stratton, Inc., 1954.

26. Berrien, F.K., A study of the drawings of abnormal children. J. Educ. Psychol., 26:143-150, 1935.
27. Brown, E.A. and Goiten, P.L., The significance of body image for personality assay. J. Nerv. Ment. Dis., 97:401-408, 1943.
28. Brown, Fred, Adult case study: Clinical validation of the House-Tree-Person drawings of an adult case. (In: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958, p. 261-275).
29. Buck, J.N., The H-T-P technique. J. Clin. Psychol., 5: 37-74, 1949.
30. \_\_\_\_\_, The case of R: Before and after therapy. (In: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958, p. 276-308).
31. Carkhuff, R.R., The Goodenough Draw-A-Man test as a measure of intelligence in noninstitutionalized subnormal adults. J. Consult. Psychol., 26:476, 1962.
32. Carstairs, G.M., Art and psychotic illness. Abbottemp, 3: 15-24, 1963.
33. Cooke, E., Art Teaching and Child Nature. London, J. of Educ., 1885.
34. Carddick, R.A., The self-image in the Draw-A-Person test and self-portrait drawings. J. Proj. Tech., 27:288-291, 1963.
35. DeMartino, M.F., Human figure drawings by mentally retarded males. J. Clin. Psychol., 10:241-244, 1954.
36. Despert, Louise, Technical problems in the study and treatment of emotional problems in children. Psychiat. Quart., 11:267-295, 1937.
37. \_\_\_\_\_, Emotional problems in children. Utica State Hosp. Press, 1938.
38. Earl, C.J.C., The human figure drawings of adult defectives. J. Ment. Sci., 79:305327, 1933.
39. Frank, L.K., ~~Projective~~ Projective methods for the study of the personality. J. Psychol., 8:339-418, 1939.

40. Gerald, H.J.P., Inverted positions in children's drawings: Report of two cases. *J. Nerv. Ment. Dis.*, 68:449-455, 1928.
41. Goodenough, Florence, Measurements of Intelligence By Drawings, Younkers, World Book Co., 1926.
42. \_\_\_\_\_, Studies in the psychology of children's drawings. *Psychol. Bull.*, 25:272-283, 1928.
43. Goodenough, F. L. and Harris, D.B., Studies in the psychology of children's drawings. II. *Psychol. Bull.*, 47:369-433, 1950.
44. Goldstein, A.P. and Rawn, M.L., The validity of interpretive signs of aggression in the drawings of the human figure. *J. Clin. Psychol.*, 13:169-171, 1957.
45. Grams, A. and Rinder, L., Signs of homosexuality in human-figure drawings. *J. Consult. Psychol.*, 22:394, 1958.
46. Gunzburg, H.C., The significance of various aspects in drawings by educationally subnormal children. *J. Ment. Sci.*, 96:951-975, 1950.
47. \_\_\_\_\_, Maladjustment as expressed in drawings by subnormal children. *Am. J. Ment. Def.*, 57:9-23, 1952.
48. Halpern, Florence, Child case study: A troubled eight-year-old. (In: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958, p. 113-129).
49. Hammer, E.F., An investigation of sexual symbolism. *J. Proj. Techn.*, 17:401-413, 1953.
50. \_\_\_\_\_, The Clinical Application of Projective Drawings, Springfield, Thomas, 1958.
51. Hammer, M. and Kaplan, A., The reliability of sex of first figure drawings. *J. Proj. Techn.*, 27:288-291, 1963.
52. Handler, L. and Reyher, J., The effects of stress on the Draw-A-Person test. *J. Consult. Psychol.*, 28:259-264, 1964.

53. Hanvik, L.J., The Goodenough Test as a measure of intelligence in child psychiatric patients. *J. Clin. Psychol.*, 9:71-72, 1953.
54. Harms, E., Child art as an aid in the diagnosis of juvenile neuroses. *Am. J. Orthopsychiat.*, 11:191-210, 1941.
55. \_\_\_\_\_, The psychology of formal creativeness. I. Six fundamental types of formal expression. *J. Gen. Psychol.*, 69:97-120, 1946.
56. Hurlock, E.B. and Thomson, J.L., Children's drawings: An experimental study of perception. *Child Develop.*, 5: 127-138, 1934.
57. Israelite, Judith, A comparison of the difficulty of items for intellectually normal children and mental defectives on the Goodenough Drawing Test. *Am. J. Orthopsychiat.*, 6:494-503, 1936.
58. Jaspers, K. *Allgemeine Symptomatologie der Psychosen*, Berlin, Springer, 1913. Cited by: Naumburg, M., Psychoneurotic Art: It's Function in Psychotherapy, New York, Grune and Stratton, Inc., 1953.
59. Jolles, Isaac, A study of the validity of some hypotheses for the qualitative interpretation of the H-T-P for children of elementary school age. I. Sexual identification. *J. Clin. Psychol.*, 8:113-118, 1952.
60. \_\_\_\_\_, A Catalogue for the Qualitative Interpretation of the H-T-P, Beverly Hills, Western Psychological Services, 1952.
61. Kerschensteiner, D.G., *Die Entwicklung, der zeichnerischen Begabung*. Gerger, Munich, 1905. Cited by: Goodenough, F.L., *Studies in psychology of children's drawings*. *Psychol. Bull.*, 28:265-283, 1928.
62. Kraepelin, E., *Lehrbuch der Psychiatrie*, 8th Ed., 4 vols, Leipzig: Barth, 1909. Cited by: Naumburg, M., Psychoneurotic Art: It's Function in Psychotherapy, New York, Grune and Stratton, Inc., 1953.
63. Kobayashi, S. (A study of a variation of fascimilies drawn by children). *Jap. J. Psychol.*, 1937, 12:375-392. (*Psychol. Abstr.*, 1938, 12, no. 979).

64. Kotkov, B. and Goodman, M., The Draw-A-Person test of obese women. *J. Clin. Psychol.*, 9:362-364, 1953.
65. Lehner, G.F. and Silver, H., Age relationships on the Draw-A-Person test. *J. Personality*, 17:199-209, 1948.
66. Levy, Sidney, Figure drawings as a projective test. (In: Abt, L.E. and Bellak, L., eds., Projective Psychology, New York, Knopf, 1952).
67. \_\_\_\_\_, Projective figure drawing. (In: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958, p. 83-112).
68. \_\_\_\_\_, Case study of an adult: The case of Mr. P. (In: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958, p. 135-161).
69. Lewis, N.D.C., The practical value of graphic art in personality studies. *Psychoanal. Rev.*, 12:316-322, 1925.
70. \_\_\_\_\_, Graphic art productions in schizophrenia. *Res. Publ. Ass. Res. Nerv. Ment. Dis.*, 5:344-368, 1928.
71. Liss, E., Play techniques in child analysis. *Am. J. Orthopsychiat.*, 6:17-22, 1937.
72. Lombroso, Cesare. The Man of Genius. London, Scott, 1895, Chapt. II.
73. Lord, E. and Wood, L., Diagnostic values in a visuomotor test. *Am. J. Orthopsychiat.*, 12:414-428, 1942.
74. Lowenfield, V., The Nature of Creative Activity, New York, Harcourt, Brace and Co., 1939.
75. Luquet, G.H., Les Bonhommes Tetards dans le Dessin Enfantin. *J. de Psychol.*, 1920, 17:684-710. Cited by: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958.
76. McHugh, G., Relationship between the Goodenough Drawing a Man Test and the 1937 revision of the Stanford-Binet Test. *J. Educ. Psychol.*, 36:119-124, 1945.

77. Machover, Karen, Personality Projection in the Drawing of the Human Figure. Springfield, Thomas, 1949.
78. \_\_\_\_\_, Human figure drawings. J. Proj. Techn., 13:447-450, 1949.
79. \_\_\_\_\_, The human figure drawings of children. J. Proj. Techn., 17:85-91, 1953.
80. \_\_\_\_\_, Adolescent case study: A disturbed adolescent girl. (In: Hammer, E.F., The Clinical Application of Projective Drawings, Springfield, Thomas, 1958, p. 130-134).
81. Martin, H., Stile und Stilwandlungsgesetz der Kinderzeichnung, nachgewiesen an den Menschenzeichnungen der Volksschulkinder. (Style and lasts of change in style in children's drawings of a man by folks school children). Vjsch. Jugendk., 1932, 2:211-226. (Psychol. Abstr., 1933, 7, no. 2086).
82. Mayman, Martin and Schafer, Roy, Interpretation of the Wechsler-Bellview intelligence scale in personality appraisal. (In: Anderson, A.A. and Anderson, G.L. eds., An Introduction to Projective Techniques, New York, Prentice-Hall, Inc., 1951, p. 541-579).
83. Miller, J., Intelligence testing by drawings. J. Educ. Psychol., 29:390-394, 1938.
84. Modell, A.H., Changes in human figure drawings by patients who recover from regressed states. Am. J. Orthopsychiat., 21:584-596, 1951.
85. Mohr, Fritz, Uber zeichnungen von geisteskranken und ihre diagnostische verwertbarkeit. J.F. Psychol. u. Neurol., 1906-7, 8, 99-140. Cited by: Naumberg, M., Psycho-neurotic Art: It's Function in Psychotherapy, New York, Grune and Stratton, Inc., 1953.
86. Mott, S.M., The development of concepts: A study of children's drawings. Child Develop., 7:144-148, 1937.
87. Naumbert, Margaret, The drawings of an adolescent girl suffering from anxiety hysteria with amnesia. Psychiat. Quart., 18:197-224, 1941.

88. \_\_\_\_\_, Children's art expression and war. *Nerv. Child*, 2:360-377, 1942.
89. \_\_\_\_\_, A study of the art expression of a behavior problem boy as an aid to diagnosis and therapy. *Nerv. Child*, 3:277-319, 1944.
90. \_\_\_\_\_, The psychodynamics of the art expression of a boy patient with tic syndrome. *Nerv. Child*, 4:374-409, 1945.
91. \_\_\_\_\_, Fantasy and reality in the art expression of behavior problem children. (In: Lewis, N.D.C. and Pacella, B.L. Modern Trends in Child Psychiatry, New York, International Univ. Press, 1945, p. 193-218).
92. \_\_\_\_\_, A study of the psychodynamics of the art work of a nine-year-old behavior problem boy. *J. Nerv. Ment. Dis.*, 101:28-64, 1945.
93. \_\_\_\_\_, A study of the art work of a behavior problem boy as it relates to ego development and sexual enlightenment. *Psychiat. Quart.*, 20:74-112, 1946.
94. \_\_\_\_\_, Studies of the "free" art expression of behavior problem children and adolescents as a means of diagnosis and therapy. *J. Nerv. Ment. Dis.*, Monogr., no. 71, New York, Coolidge Foundation, 1947.
95. \_\_\_\_\_, Psychoneurotic Art: It's Function in Psychotherapy. New York, Grune and Stratton, Inc., 1953.
96. Noller, P.A. and Weider, A., A normative study of human figure drawings for children. *Amer. Psychol.*, 5:319-320, 1950.
97. Peck, K., An experiment with drawing in relation to the prediction of school success. *J. Appl. Psychol.*, 20:16-43, 1937.
98. Pfister, Oscar. Expressionism in art: Its psychological and biological basis. Trans. by Low, B. and Mugge, N.A., New York, Dutton, 1923.
99. Pfeifer, R.A. Der Geistesranke und sein Werk: Eine studie Uber Schizophrene Kunst. Keipzig: Kroner, 1925. Cited by: Naumburg, M., Psychoneurotic Art: It's Function in Psychotherapy, New York, Grune and Stratton, Inc., 1953.

100. Prinzhorn, H., *Bildnerie der Geisteskranken*. Springer, Berlin, 1922. Cited by: Goodenough, F.L., *Studies in psychology of children's drawings*. Psychol. Bull., 28:265-283, 1928.
101. Rambert, M.A., The use of drawings as a method of child psychoanalysis. (In: Haworth, M.R., ed., Child Psychotherapy, New York, Basic Books, Inc., 1964, p. 340-363).
102. Ricci, C., *L'Arte dei Bambini*. Bologna, 1887. (Abstr. by Maitland, Louise in *Ped. Sem.*, 1894, 3:3-2-307). Cited by: Goodenough, F.L., *Studies in psychology of children's drawings*. Psychol. Bull., 28:265-283, 1928.
103. Schilder, Paul, *Wahn and Erkenntnis*. No. 15. In: *Mono-graphien aus dem Des. d. Neurol. u. Psychiat.*, Berlin, Springer, 1918. Cited by: Naumburg, M., Psychoneurotic Art: It's Function in Psychotherapy, New York, Grune and Stratton, Inc., 1953.
104. \_\_\_\_\_, The child and the symbol. *Scientia*, 64:21-26, 1938.
105. \_\_\_\_\_, The Image and Appearance of the Human Body. New York, International Universities Press, Inc., 1950.
106. Schilder, Paul and Levine, E.L., Abstract art as an expression of human problems. *J. Nerv. Ment. Dis.*, 95:1-10, 1942.
107. Schmidl-Waehner, Trude, Formal criteria for the analysis of children's drawings. *Am. J. Orthopsychiat.*, 12:95-103, 1942.
108. \_\_\_\_\_, Interpretation of spontaneous drawings and paintings. *Genet. Psychol. Monogr.*, 33:3-70, 1946.
109. Schuyten, M.C., *De oorspronkelijke "Ventjes" der Antwerpsche Schoolkindern*. *Paed. Jaarb.*, 1904, 5:1-87, Cited by: Goodenough, F.L., *Studies in psychology of children's drawings*. Psychol. Bull., 28:265-283, 1928.
110. Sherman, L.J., The influence of artistic quality on judgments of patient and non-patient status from human figure drawings. *J. Proj. Techn.*, 22:338-340, 1958.

111. Simon, Max P., L'imagination dans la folie: Etude sur les dessins, plans, descriptions, et costumes des alienes. Ann. Med.-Psychol., 1876, 16:358-390. Cited by: Naumberg, M., Psychoneurotic Art: It's Function in Psychotherapy, New York, Grune and Stratton, Inc., 1953.
112. Spoerl, D.T., The drawing ability of mentally retarded children. J. Gen. Psychol., 57:259-277, 1940.
113. Springer, N.N., A study of the drawings of maladjusted and adjusted children. J. Genet. Psychol., 58:131-138, 1941.
114. Swensen, C.H., Sexual differentiation on the Draw-A-Person test. J. Clin. Psychol., 18:119-121, 1954.
115. \_\_\_\_\_, Empirical evaluations of human figure drawings. Psychol. Bull., 54:431-466, 1957.
116. Swensen, C.H. and Newton, K.R., The development of sexual differentiation on the Draw--A-Person test. J. Clin. Psychol., 11:417-419, 1955.
117. Weider, A. and Noller, P., Objective studies of children's drawings of human figures. J. Clin. Psychol., 6: 319-325, 1950.
118. William, J.N., Interpretation of the drawings made by maladjusted children. Virginia Med. Monthly, 67:533-538, 1940.
119. Wolff, W., The Expression of Personality. New York, Harper, 1943.