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Service Paper

SURVEY OF THE RESEARCH DONE ON ART AMONG SCHIZOPHRENIC CHILDREN

By

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(B.S. School of Education, 1949)

In partial fulfillment of requirements for
the degree of Master of Education
1951
First Reader: Helen B. Sullivan, Professor of Education
Second Reader: E. Alice Crossley, Assistant Professor of Education
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CHAPTER I

INTRODUCTION

The purpose of this study is to survey the research done on spontaneous art among schizophrenic children.

It is agreed upon by most psychiatric authorities that a favorable prognosis in the treatment of schizophrenia is directly proportional to the promptness with which therapy is instituted. The conditions giving rise to schizophrenia are often alterable in favor of the patient. The average schizophrenic individual does not want to be that way and can be trained, if diagnosed early enough, to work out a less faulty mode of adjustment. Since the earlier the preschizophrenic is diagnosed, the greater are the chances of eventual adjustment to the environment, it behooves us to detect any prodromal signs that the child may display. Then, too, there is the need to prevent "contagion;" children are mimics, and they can imitate negative methods of adjustment as well as positive.

There is also the problem that confronts the teacher of the poor student due to preclinical schizophrenia. And lastly, the economic factor is to be considered; the savings in time and money brought about by early diagnosis and treatment of schizophrenic children are self-evident.

This paper is therefore presented:

1. To review and study the literature and past work that has been done in the field.

1.
2. To survey the research pertaining to the use of the spontaneous art of schizophrenic children as a method of diagnosis.

3. To determine if the research is conclusive.

4. To determine to what extent this research has been utilized in the creation of a valid and reliable test instrument that will aid in the early diagnosis of schizophrenia in children.
CHAPTER II

BRIEF HISTORICAL SURVEY OF THE FIELD OF SPONTANEOUS ART

From 1876 on, there have been many approaches to the problem of diagnosing mental illness on the basis of Spontaneous Art expression. In order to provide a background, however, it is necessary to review some of the more important work done on the narrative so that we may have a baseline from which aberrational art may be viewed.

Interest in children's art was displayed as early as 1893 in an article by Barnes appearing in the Pedagogical Seminary, Volume 2. Barnes gave 3,393 children between the ages of 6-16 the poem "Johnny Look in the Air" to freely illustrate. Herrick, in 1893, similarly tested 451 children using the same poem. Maitland, in 1895, Lukens, in 1896, and Gallagher, in 1897, conducted investigations in an effort

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3 Maitland, I., "What Children Draw to Please Themselves," Inland Educator, 1(1895) p. 87.


to discover the subject material most preferred by children in tests where free choice was permitted. Burke,\textsuperscript{1} in 1902, contributed an article dealing with the genetic versus the logical order in drawing.

Analyses of these studies revealed that, in the drawings of the child up to ten years of age, the most frequently recurring subject is that of human beings. There existed little difference between the work of boys and girls, both drawing large distinct figures composed of few lines. Typically, these drawings were full of movement and expressed symbolically as well as conventionally the children's ideas; they drew what interested them most, and used size for emphasis.

These early articles on children's drawings were, in many cases, as lucid, scientific and accurate as most of the papers published in more recent years.

A Study of the Developmental approach to child art reveals the following chronological stages:

Gesell\textsuperscript{2} found that before the age of a year there is no combination of paper and crayon. The year old child will usually bring his crayon to the paper but he does not always leave a mark; if he does it may be a dot caused by his hitting or accidently brushing the paper. Thus the scribbling stage is

\textsuperscript{1}Burk, F., "The Genetic Versus the Logical Order in Drawing," \textit{Pedagogical Seminary}, 2(1902) pp. 296-323.

inaugurated. At first there are random dots due to the child of twelve months accidentally banging the paper, but by thirteen months the situation is reversed and twice as many children deliberately mark the page, resulting in dashes rather than dots. Wolff\(^1\) felt that even in these accidental and random manifestations the child was expressing his personality. The force with which he hit the page, how often he struck the page, in what direction his dots and dashes pushed, (how thick or thin his resultant line was), the boundaries of his markings, all were characteristic of the particular child.

As the child develops and gains better eye-hand co-ordination there transpires a gradual development of linear technique. By 14 months\(^2\) the child is drawing linear marks; at fifteen months scribbling starts. The average child of 18 months not only marks the page but he also scribbles.\(^3\) The scribbling lines vary in direction, being horizontal in one-third of the children, circular or at an angle in one-third and one-third scribble in a helter-skelter fashion, their marks going in all directions, including, as in all of them at this age level, off the page. This has been called "the stage of undifferentiated scribble."\(^4\)

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\(^2\)Gesell, op. cit.

\(^3\)Ibid., p. 140.

The lateral whirl makes its appearance now. "At 2 years the marks tend to be circular or at an angle, rather than vertical, horizontal, or in all directions." (Gesell p. 141)²/

Bender²/ stated in 1938:

"In the study of the Genesis of visually perceived form, it was determined that a vertical movement is the basis for the organization of the visual field and is the beginning of all form."

Fabian³/ described the lateral whirl in 1945:

"The young child starts with a large whole arm circular scribble; action is the initial impulse for form. It is never unpatterned and the pattern always includes action or motor elements and visual or form elements and spatial and temporal elements."

Bell⁴/ felt that:

"The lateral whirl reflects, in graphic motion, the body image of the child in his development of space orientation."

The lateral whirl appears to be the matrix from which later differentiated form appears. Gradually the vertial movement becomes better controlled; it becomes more rhythmic and less restricted.

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¹Gesell, op. cit., p. 141.
Fabian felt that it was not until the child had reached three or four that he was able to control the vortical movement well enough to make discrete circles. Gesell\(^1\) found that at three the child still used undifferentiated form but that he named it. He also held that the child of four draws differentiated form crudely. So somewhere between the three year old artist, who names his products, who "doodles" developmentally and the four year old who really draws, the fourth stage of scribbling occurs, when circular-tending forms which can be distinguished are formed. These circles are often angular, but a great percentage of them are truly circles. Fabian found that these circles had a relationship to one another; they were "concentrically and directionally on a horizontal plane."

As the child further gains control of his medium he dispenses with extraneous lines that do not portray what he means. Just as the child out of babbling produces speech, so gradually the child begins to produce form from motion. This last stage of scribbling was called the second by Voilà.\(^2\) She feels it encompasses the time when the crude, rough, geometric shapes come into being. (p. 27) Fabian\(^3\) found that,

\(^1\)Gesell, op. cit., p. 142.
\(^2\)Voilà, op. cit.
\(^3\)Fabian, op. cit.
by the age of four, the child produced a modified circle for a square. By the time the child is five his triangle is a modified circle that resembles a circle with apices. At six years according to Gesell\(^1\) he can imitate a diamond.

Buhler\(^2\) feels the scribbling stage is over and has accomplished its purpose when it leads through accidental resemblance to a representative function.

The period of Subjective Representation can be considered the second in the genetic stages of children's drawings. Now the child is developing conscious control; the impulsive behavior of the scribbling stage is on the wane; he begins to want to express himself. His first crude attempts are the drawing of the human face, quite often a self-portrait.\(^3\) Viola,\(^4\) in company with Barnes\(^5\) and Herrick,\(^6\) also believed that almost without exception children have human beings as

\(^{1}\)Gesell, op. cit.


\(^{4}\)Viola, op. cit.

\(^{5}\)Barnes, op. cit.

\(^{6}\)Herrick, op. cit.
their first and favorite subject. "The child's earliest representations at 3½-4 somehow express themselves—they have painted themselves as they feel themselves from within." ¹/

At this stage the child is pleased if he knows what his drawing stands for. ²/ To them, then, drawing is a language, and not only a language but also a mirror of themselves; what they think of themselves, flaws and perfection, all revealed.

Lowenfeld ³/ studied the near-blind; he found that they over-emphasized the eyes in their crayonings and also those other parts of the body that had emotional connotations to them.

So, since the child's strongest feelings are concerned with self and other people, and self is more than a face, the child branches out in his drawings. His original massive head drawing begins to be a crude stick-man by the addition of legs, and these offshoots may have no particular resemblance to legs. There may be numerous loops coming out of the head, or lines like sticks, but they are legs even if they emerge from the head. Then arms are added as the child's awareness of self and powers of discrimination advance with age. After the arms have been added to the schema fingers usually follow, and here, too, number appears unimportant to the child as long as the idea of

¹/ Alscherler and Hettwick, op. cit., p. 7.


fingers is conveyed. The toes are rarely pictured, probably because the child is not as cognizant of them and their function in balance as he is of his fingers and their role in securing things for him. Then, too, the toes are usually covered by socks and boots, i.e., practically invisible, whereas the fingers are readily seen. The next addition to the stick-man is the trunk. Hats are added before hair because children feel hats being put on their heads or put them on themselves, thus becoming acquainted with them. Later, when they start to comb their own hair, they will add locks to their figures.

Representation at this time tends to follow use which brings awareness. Buttons and armholes are also added, as they become part of the child's consciousness. Gradually, between the ages of four to five, this differentiation of parts of the human body occurs. In one short year so much is accomplished; the drawings are very individualistic, since each is built up on the child's own experiences. In one-fifth of the children, letters form a part of their pictures; one-quarter draw a person; another one-quarter draw a building. At five-six years the child has attained the Realistic Representation stage of drawing; they draw simple but easily recognizable forms and objects.

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1 Alschuler and Hattwick, op. cit., p. 8.
2 Gesell, op. cit., p. 142.
Ferrine, 1/ like Goodenough2/ and Alschuler, 3/ felt that
details in children's drawings are emphasized in proportion to
the intensity with which they have been, or are being, ex-
perienced by the child. They exaggerate in size or number
those parts of the subjective representation which have become
important to them from their own experience. Their omissions,
too, are significant and should not be regarded as accidental.
If they have not experienced a part of the body through use,
they may leave it out, or they may leave out a part because
they have very strong unconscious, negativistic feelings about
it.4,5/ Thus as the child sees himself from the inside will he
portray himself. The synthesis of the schemata seems to take
place as the child makes his drawing. 6/

By the age of nine there is a transition: the child
at this time is not so interested in portraying what he feels
as in drawing or painting objectively. He is drawing, as

1Ferrine, V. D., Let The Child Draw, New York: F. A.
Stokes and Co., 1938.

2Goodenough, F. L., "Studies in The Psychology of
272-79.

3Alschuler and Hattwick, op. cit.

4Lorenfeld, Viktor, op. cit.

5Hacorover, Karen, Personality Projection in The
Drawing of The Human Figure, Springfield, Ill., C.C. Thomas,
1949.

6Oakley, C. A., "The Interpretation of Children's
Buhler\textsuperscript{1} said, to give a graphic account. Errors in spatial relations and errors in translation of knowledge are still to be expected and will be found. The child now is satisfied with his products if they are so constructed that others understand them.\textsuperscript{2}

Gizek\textsuperscript{3} felt that older children's paintings are likely to be less self-expressive than the young child's. The child is not critical of his drawings before the age of nine (approximately). His impulse to drawing is the pleasure derived from the objectification of emotion. But as the child matures, he becomes critical of his artistic ability as he applies society's aesthetic standards to his efforts; this evaluation tends to make him self-conscious. He loses confidence in his ability to draw.\textsuperscript{4} His formerly free self-expression becomes inhibited. He now begins to paint hoping for social approval. In order to procure the praise he wishes, he begins to imitate and copy. Thus is ushered in the third drawing stage: the stage of Realistic Representation. Many children become so self-critical about their drawings at this stage that they

\textsuperscript{1}Buhler, op. cit.
\textsuperscript{2}Kirkpatrick, op. cit.
\textsuperscript{3}Viola, op. cit.
cease entirely to draw or paint. Beyond this stage maturational changes contribute very little of significance.

It has been necessary to discuss these former investigations in child art in order to have a frame of reference against which to survey the field of Psychotic Art in Schizophrenic children.

Despite the fact that there have been about 3600 articles and books written about schizophrenia in the last decade, and hundreds in toto, written on the art of psychotics and the use of art in various capacities and as projective tests, up until 1940, Anastasi and Foley\(^1\) found only two individual case studies on the art-products of abnormal children. One of the children drew symbolic self-portraits, but nowhere does Merzbach mention what type of psychosis the child had. Rouma's case study was of a five year old pathological liar who was diagnosed as "emotionally unstable."

To date, there have been a few more individual case studies dealing with the art of abnormal children, none of them dealing specifically with the drawing of schizophrenic children.

Therefore, in order to gain some insight into the premises that have been made concerning schizophrenic art and its use as a means of diagnosis, it is necessary that we widen our base and include all the pertinent studies of devotional

art that mention schizophrenic art, not only in the child, but also in the adult.

There have been many methods of approach to the study of deviational art, and the techniques of securing samples of artistic behavior have varied.

First, foremost, and most frequently, there have been the descriptive and collective group studies, where the author amassed a wealth of spontaneous art from patients; they then described it and tried to draw conclusions empirically from it. Others just described the assortment of scraps, odd shapes, and interesting drawings and paintings they had gathered together, and let the description suffice. But still a picture of psychotic drawing traits began to be set up.

In 1876 Max Simon1 in France became interested in how his patients' art was related to their clinical symptoms. He helped to establish the first criteria for distinguishing between the disease syndromes of the psychoses. To him, schizophrenic art could be distinguished because it was incoherent, inconsistent, childish, full of symbolization, and tended to be stylized.

 Cesare Lombroso, in Chapter Two of his book The Man of Genius, published by Scott in London, 1895, discussed the stigmata of deviational art; he found that in their choice of

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1Simon, Max. This is a summarization of his work as compiled from Anastasi and Foley and other articles mentioned in the bibliography.
subject matter the work of the schizophrenics was frequently obscene.

The American Journal of Insanity, in January of 1899, printed the first study of the art and literature of the abnormal to appear in America. Dr. Ales Hrdlicka's article,\footnote{Hrdlicka, Ales, "Art and Literature in the Mentally Abnormal," The American Journal of Insanity, 15(1899) pp. 385-404.} like the many that were to post-date it, was based on observation and empiricism. Since Kraepelin had not yet clarified the nosology of schizophrenia, Hrdlicka does not list schizophrenics as being among the 400 patients he examined in the Middletown State Hospital. He lists paranoia, acute melancholia, chronic mania, general paresis, chronic melancholia and acute mania. Since schizophrenics make up such a large part of our hospital population, it seems unlikely that there were no schizophrenics in the writer's survey.

He felt that

"The degree of art attained by the insane of any class is never very great, and it is safe to say that it is always below what the person was capable of before becoming insane."\footnote{Ibid, p. 388.}

He too described the distinguishing signs of the drawings, but he added to this his belief that,\footnote{Ibid, p. 329.} "As a rule, the objects represented in the drawings are those which play a large role
in the morbid mental life of the patient."

Prinzhorn, in 1923, published a profusely illustrated momentous text on the spontaneous art of the insane. Some of the drawings and paintings were reproduced in color, and in each instance the dimension of the product and the medium used was specified. This text can be considered one of the most important of the early folies in the field. Since Prinzhorn selected his cases to illustrate his data, as did those who preceded him, they, as a result of the factor of selection, cannot be considered proof of any of his points. This does not mean that they are not valid; they have yet to be scientifically proved or disproved.

Prinzhorn felt that the work of schizophrenics was too varied to be diagnosed consistently as a product of that particular psychosis. He felt there was no one formula for schizophrenic art. He classified it in these categories as reported by Anastasi and Foley.

"Prinzhorn classifies schiz art (1) disorganized, objectless sketches, as in scribbling and stereotyped repetition of crude lines and curves; (2) playful sketches, with manifestation of the orderly tendency, including most of the decorative and geometric designs; (3) playful pictures with imitative tendencies, in which objects or parts of objects are arranged incoherently and placed helter skelter on the page with no systematic theme; (4) visual fantasies, including portrayals of hallucinations, mythical subjects, 'cosmic' themes, and other protean or fantastic but well-coordinated pictures; (5) symbolic pictures, illustrated by representations of religious and allegorical themes and often accompanied by cryptic inscriptions."

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1Anastasi and Foley, op. cit., p. 12.
Despite the fact that he did not feel one could diagnose on the basis of the spontaneous art work of the schizophrenic, he felt art work could be an adjuvant to therapy in the psychotic. Despite the differences between various schizophrenic productions, he was of the opinion that they could not be taken for the work of sane artists. His interpretations were based upon a number of hypostatized and vaguely defined concepts such as "universal tendencies" and "innate urges."

Vinchon added the novel premise, in 1924, of comparing schizophrenic products to trance drawings. He described them as showing the limits to which automatic production can go.

Guttman and Maclay, 1 in 1937, in their survey of schizophrenic art, stressed the fact that no drawings should be taken out of context and interpreted; the drawings can only be understood on the basis of a thorough knowledge of the individual as an entity. They included the illustrated records of five cases.

Wolfgang Born, in 1946, on the basis of an exhibition of Spontaneous Art by Psychotics, arranged by the Museum of Modern Art in New York and a historical survey of the field, postulated that:

"The schizophrenic personality expresses itself in drawings which appear distorted but reveal deep sensitivity to line and color and are very

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He stated that only an extremely small percentage of the patients spontaneously draw, and this small group is predominantly schizophrenics.

In none of the above surveys was a normal control group used. There was no attempt made to systematize or coordinate the material nor to analyze it statistically. The collecting of specimens of aberrational art, their descriptions, and some empirical conclusions and unvalidated theories were all that were offered.

In order to facilitate perusal of the clinical signs that each author thought pathognomonic of abnormality in the spontaneous art of adult schizophrenic patients, the following tables have been set up. There has been an attempt to group the various criteria into categories; these of necessity are rough, and there is overlapping. When an author used similar terms, but not the exact one, his expression was included in parentheses. By scanning the authors that used the criteria, one can see about which of the signs there was most agreement.

These Tables indicate that despite the lack of scientific procedure utilized, despite the existing differences in semantics and theory, a constellation of traits to be found in schizophrenic art was emerging.

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## TABLE I

### ART OF ADULT SCHIZOPHRENICS

**MANIFESTATIONS OF IMMATURITY**

<table>
<thead>
<tr>
<th>Clinical Signs</th>
<th>Mentioned By</th>
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<tbody>
<tr>
<td>Child like</td>
<td>Max Simon, Hrdlicka, Pfeifer (primitive (not child-like)) LeRoy (childish ideas), Lewis (style like primitive groups and children), Baynes (regressive) Mosse (&quot;there is a striking similarity between the paintings of psychotics and the drawings of children and primitives. It means that these products have to be looked upon as regressions to earlier stages of mental developments.&quot;) Anastas and Foley, (style like primitive groups and children).</td>
</tr>
<tr>
<td>Scribbling</td>
<td>Prinzhorn, Vinchon (the most elemental form of schizophrenic art).</td>
</tr>
<tr>
<td>Tempo</td>
<td>Prinzhorn, (frenzied speed), Lewis, (over-productivity, due to emotional tone of his experiences, patient desires to communicate, also due to boring immediate environment).</td>
</tr>
<tr>
<td>Style</td>
<td>Hrdlicka, (gross and crude), Karpov, crude, poorly executed, barely recognizable sketches, Shottky, (content is normal throughout, only style gives any evidence of mental disturbance. During psychosis the style is non-realistic, disintegrated and shows tension; during recovery it is a style of weakness and distraction), Pfeifer and Wexensht, (expressionistic style), Janota, (schematic outline drawings revealing little attention to detail and a dearth of ideas), Mosse, (complete emptiness of picture), Born, (distorted by sensitivity to line and color).</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Clinical Signs</th>
<th>Mentioned By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afield and a Border</td>
<td>Morgenthaler</td>
</tr>
<tr>
<td>Lack of Symmetry</td>
<td>Prinzhorn, (probable result of inadequate training)</td>
</tr>
<tr>
<td>Distortions of Perspective Color</td>
<td>Prinzhorn, (inadequate training), Morgenthaler, Born (appear distorted), Naumburg (distorted forms in their first design when starting art therapy)</td>
</tr>
<tr>
<td>Color</td>
<td>Pfeifer and Meyendorf (at times orgies of color), Born (deep sensitivity to color), Naumburg (unreal color)</td>
</tr>
<tr>
<td>Shading</td>
<td>Janota, (achieved with very small words)</td>
</tr>
<tr>
<td>Draw Transparent</td>
<td>Machover, (internal organs may be shown)</td>
</tr>
</tbody>
</table>
**TABLE II**

**ART OF ADULT SCHIZOPHRENICS (A)**

Projection of Internal Experiences Upon the Outside World

<table>
<thead>
<tr>
<th>Clinical Signs</th>
<th>Mentioned By</th>
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<tr>
<td><strong>Symbolism</strong></td>
<td>Hrdlička, (symbolic and allegorical), Mohr, Fränzborn, (cryptic symbolic inscriptions and religious and allegorical themes), Karnov, (patient used different colors for each emotion - Naumberg also reported this. Vincenox, Guttman and Maclay (the inclination for peculiar symbolic representation), Burr, (emotional complexes, erotic nature), Lewis, Rorschach, (symbolic content to unimportant appearing scribbling), Moase, (&quot;These pictures being the projection of internal experiences upon the outside world, show as typical pathognomonic signs; symbolism, stereotypy, horror vacui, mannerisms, a strange inaccessibility and a kind of noiseful display of importance amalgamated with a complete emptiness of the picture&quot;) Born, (lack of logical arrangement mentally leads to symbolism), Naumberg, (consistently use certain symbols, she felt this was a regression to archaic or primitive levels of the unconscious. The substitution of a symbol for an idea).</td>
</tr>
<tr>
<td><strong>Mannerisms</strong></td>
<td>Mohr, Morgenthaler</td>
</tr>
<tr>
<td><strong>Fragmentation of objects or persons</strong></td>
<td>Shottky, (disintegrated), Morgenthaler, (the schizophrenic in his drawing fragments reality), Guttman and Maclay, (characteristic of schizophrenia), Naumberg, (paintings look splintered like a pane of glass, jagged, (lines cutting across page. Parts of body were displayed in the drawings).</td>
</tr>
</tbody>
</table>

1Moase, *op. cit.*, p. 66.
<table>
<thead>
<tr>
<th>Clinical Signs</th>
<th>Mentioned By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined facies of people and animals</td>
<td>Hrdlicka, (intercalated faces are very frequent in landscape drawing of schizophrenics and in other types too), Bertachinger, Morzenthaler (figures interwoven in scene), Naumburg, (divided faces occur frequently)</td>
</tr>
<tr>
<td>Barrier</td>
<td>Mossa, (inaccessibility), Naumburg, (the barrier cuts across the schizophrenic's drawing, dividing it into two parts: the conscious and the unconscious levels).</td>
</tr>
<tr>
<td>Clinical Signs</td>
<td>Mentioned By</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Stereotyped</td>
<td>Prinzhorn, (tendency toward stylization), Karpov, (believes stereotypy is exclusively characteristic of schizophrenia), Vinchon, (stylized figures), Lewis, (stylized), Marie and Neunier, (numbers and words, with &quot;achographia&quot; the repetition of a heard word or phrase), Leroy, Morgenthaler, Guttman and Maclay, (single lines and increased stylization of drawing)</td>
</tr>
<tr>
<td>Repetition</td>
<td>Mohr, (occurs in the later stages of schizophrenia), Vinchon, (repetitive forms)  Morgenthaler, (motifs of schizophrenic art tend to repeat themselves), Guttman and Maclay (mannered repetition of the same motive or arrangement of objects), Neumburg, (she found that her patient continually used certain symbols and there existed repetitive patterns in her designs)</td>
</tr>
<tr>
<td>Perseverative</td>
<td>Mohr, (this occurs in the later stages of schizophrenia), Prinzhorn, (patients with fixed ideas develop perseverative repetitions)</td>
</tr>
<tr>
<td>Monotonous</td>
<td>Vinchon</td>
</tr>
<tr>
<td>Automatisms</td>
<td>Morgenthaler, Leroy</td>
</tr>
<tr>
<td>Clinical Signs</td>
<td>Mentioned By</td>
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<td>----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>&quot;Horror Vacui&quot;</td>
<td>Prinzhorn, (decorate entire available surface resulting in a tapestry-like effect), Lewis, (compulsive filling of all available space-idea-plastic), Morgenthaler, (tendency to cover the whole surface in a complex pattern), Anastasi and Foley, Moase, (like wallpaper), Born</td>
</tr>
<tr>
<td>Meticulous Elaboration</td>
<td>Krdlicka, (the execution of the drawings is often elaborate), Prinzhorn, (decorative), Vinchon, Guttman and Maclay, (increased ornamentation)</td>
</tr>
<tr>
<td>Abundance of Details</td>
<td>Vinchon, Guttman and Maclay, (indulgence in details)</td>
</tr>
<tr>
<td>Lack of Detail</td>
<td>Krdlicka, (their drawings frequently lack in detail and fine points. This is a contradiction of the above), Janota, (little attention to detail)</td>
</tr>
<tr>
<td>Clinical Signs</td>
<td>Mentioned By</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Geometric Designs</td>
<td>Prinzhorn, (abstract geometric designs), Lewis, (abstract), Morgenthaler, (geometric abstractions), Guttman and MacKay, (the lack of interest in realistic representation are the characteristic features of schizophrenic productivity), Mosse, (&quot;trying to re-establish the poor or annihilated relations of the Ego with the surrounding world the patient does not progress to a specific kind of object nor to these objects themselves but goes astray on the way to such an achievement.&quot;)</td>
</tr>
</tbody>
</table>

\[1\text{Mosse, op. cit., p. 86.}\]
### TABLE III

**ART OF ADULT SCHIZOPHRENICS**

<table>
<thead>
<tr>
<th>Imagery</th>
<th>Mentioned By</th>
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<tr>
<td>Visual Fantasies</td>
<td>Hrdlicka, (supernatural objects, designs of perpetual motion machines, drawing of paper money in substantial denominations), Prinzhorn, (hallucinations about mythical subjects often find their outlet in painting. Other hallucinatory material, &quot;cosmic themes&quot; form the basis for other works. Then too there are the grotesque and fantastic, but nonetheless well coordinated pictures. The pictures portraying delusions of grandeur also occurs. Schizophrenic paintings displayed characteristics of dream work. Janota, (Grandiose delusions of castles and aristocratic themes are mentioned), Haseman and Zingerle, (dreamlike), Huttman and Maclay, (mystical allusions; can draw hallucinations vividly years after experience it), Mosse, (&quot;the creative impulse of the patient is a compensatory mechanism; in an attempt to be cured, it follows the mechanism of the dream work. As in dreams, we are able to understand the meaning of these pictures to some extent by analyzing and translating the latent content according to the analytic technique of interpretation (condensation, symbolism, contrast, etc.). It is the language of the Id a language in which the Ego takes part only to a very limited extent.&quot;). See Born, (cosmological figures, describe and illustrate complicated machines to which they attribute the pains they suffer and which point to their magical belief).</td>
</tr>
</tbody>
</table>

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1Mosse, op. cit., p. 66.
<table>
<thead>
<tr>
<th>Clinical Signs</th>
<th>Mentioned By</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Religious</td>
<td>Hrdlicka, Prinzhorn, Guttman and Maclay, (preference for religious and mystical objects)</td>
</tr>
<tr>
<td>B. Erotic</td>
<td>Prinzhorn, Vinchon, Guttman and Maclay, (sex frank)</td>
</tr>
<tr>
<td>C. Obscene</td>
<td>Lombroso, Hrdlicka</td>
</tr>
<tr>
<td>Imaginative</td>
<td>Jannot, (a dearth of ideas), Born, (very imaginative)</td>
</tr>
<tr>
<td>&quot;Autistic Nature&quot;</td>
<td>Prinzhorn, (most essential characteristic of schizophrenic art. The schizophrenic fails to differentiate reality and fancy. He is not interested in conveying a message to others).</td>
</tr>
<tr>
<td>Weird</td>
<td>Pfeifer and Mayrandt</td>
</tr>
<tr>
<td>Gruesome</td>
<td>Mohr, (hallucinations)</td>
</tr>
<tr>
<td>Oddities</td>
<td>Hrdlicka, (fabulous creatures either human or animal), Mohr</td>
</tr>
</tbody>
</table>
### TABLE IV

**ART OF ADULT SCHIZOPHRENIACS**

<table>
<thead>
<tr>
<th>Aberrant Thought Processes</th>
<th>Mentioned By</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Signs</strong></td>
<td></td>
</tr>
<tr>
<td>Disruption of the</td>
<td>Karnov, Hassman and Zingerle</td>
</tr>
<tr>
<td>Associative Mechanism</td>
<td></td>
</tr>
<tr>
<td>Free Association</td>
<td>Prinzhorn, (method used by patient)</td>
</tr>
<tr>
<td>Sound Associations</td>
<td>Leroy</td>
</tr>
<tr>
<td>Writing included in</td>
<td>Hrdlicka, (secret signs, letters), Mohr, Prinzhorn, Vinchon, (letters, words, numbers), Guttman and MacIay, (figures made out of letters), Lewis, (occurs due to patient's excessive zeal to communicate), Jenots, Marie and Meunier, (lines decorated with either capitals or small letters), Anastasi and Foley, (&quot;combination of more than one medium of expression especially writing and drawing is relatively common.&quot;) Neumann, Hrdlicka, (strange words in art expressions), Vinchon</td>
</tr>
<tr>
<td>Neologisms</td>
<td></td>
</tr>
<tr>
<td>Flight of Ideas</td>
<td>Leroy, Hassman and Zingerle, Guttman and MacIay, (no dominant guiding theme)</td>
</tr>
<tr>
<td>Inconsistent</td>
<td>Max Simon</td>
</tr>
<tr>
<td>Not Harmonic</td>
<td>Morgenthaler</td>
</tr>
<tr>
<td>Most Not Complete</td>
<td>Hrdlicka, (some insane will never finish their pictures), Morgenthaler</td>
</tr>
<tr>
<td>Lack of Critical Sense</td>
<td>Prinzhorn, (execute impulsively, no regard to coherence, unity, or reality), Shottky, (nonrealistic), Guttman and MacIay, (arranging parts in an incomprehensible manner)</td>
</tr>
</tbody>
</table>

1Anastasi, Foley, *op. cit.*, p. 62.
<table>
<thead>
<tr>
<th>Clinical Signs</th>
<th>Mentioned By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incoherent</td>
<td>Max Simon, Prinzhorn, (&quot;objects or parts of objects are arranged incoherently and placed helter-skelter on the page, with no systematic theme.&quot;), Karpov, Pfeifer and Weygandt, (confused), Leroy, (incomprehensible arrangements of lines, figures and writing), Morgenthaler, (strange ordered chaos), Hassmann and Zingerle, Machover, (work in confusion, scattering over the drawing, planlessly)</td>
</tr>
<tr>
<td>Absurdities</td>
<td>Mohr</td>
</tr>
<tr>
<td>Silliness</td>
<td>Mohr</td>
</tr>
</tbody>
</table>

While adherents of the group-study method were forging ahead, collecting the spontaneous art of psychotics and doing exploratory work with this data, other workers in the field approached the problem by means of individual case studies. Usually one or two patients were discussed, they and their art work having been followed over a greater or lesser period of time. This was the longitudinal view of aberrational art work, as opposed to the previously discussed horizontal one. The advantage of this method was that one could get to know the patient and his work much more intensively. One could thus, on the basis of his behavior and verbalizations, draw finer correlations between the patient and his productions.

Usually from these studies the following information could be obtained: the patient's sex, age, the approximate extent of previous artistic training, a diagnosis (which was often inaccurate in the earlier studies due to "changing standards of classification and loose use of terms;" the previous occupation might be mentioned, the amount of education was least frequently noted. Occasionally the patient's familial background and psychiatric history was included.

Some investigators, notably Janota, Marie and Meunier, Shottky and Pfeifer, and Weygandt,\(^1\) did individual case

\(^1\)Anastasi and Foley, op. cit., p. 21.
\(^2\)Ibid, and other sources mentioned in bibliography.
studies with schizophrenics because they were interested in their artistic activity from an aesthetic point of view. Despite the fact that they were not concerned from a diagnostic point of view, many of their observations of clinical signs have merit and they have been iterated in the Tables.

Shottky stated on the basis of his study that only style gave any evidence of mental disturbance in his female schizophrenic patient. He held that the content was normal.

Pfeifer asserted that pathological drawings were trivial and nonsensical, their deeper meanings being invested in them by the same observer rather than stemming from the psychotics' intent.

The two outstanding case studies in this field to date are Morgenthaler's\(^1\) and Naumburg's\(^2\). Morgenthaler, in 1921, presented an intensive clinical study of the creations of one schizophrenic patient. He was the first and only investigator at that time to delineate, by means of a series of successive art productions, the nature of a schizophrenic's inner conflicts and the early traumatic episodes that were inherent in this psychosis. However, he made no use of this material as a method of psychotherapy with the patient. Even today, such a

\(^1\)Morgenthaler, W., this is a summarization of his work as compiled from the various surveys and articles mentioned in the bibliography.

complete psychological exploration of the art of a schizophrenic is extremely rare and valuable.

The significant text on schizophrenic art published in 1950 was Margaret Naumburg's. Her contribution was a detailed study of the spontaneous art work of two female schizophrenics. She emphasized the significance of the content of their drawings, rather than the more formal aspects of style stressed by others in the field. She used the content and the patient's resultant verbalizations as a method for understanding the patients' conflicts and as a means of psychotherapy. As one of her patient's said, through her painting she was getting to know herself better. On paper, with a paint brush, she often symbolically presented her problems without knowing she was doing it and without being aware of thinking them through. She often mirrored the divided state of her feelings by literally dividing her portrait or the canvas. Naumburg, like Morgenthaler, explored the unconscious as well as conscious causes of the psychosis by means of art work. She has demonstrated how valuable a tool spontaneous art can be in diagnosis and therapy.

A number of case studies have employed a psychoanalytic approach to the drawings of schizophrenics. In 1928, Lewis was the first psychiatrist to use analysis of the art products

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of his patient as an ajuvant to psychoanalytic therapy. He
collected the spontaneous art of his psychotic patients for his
analysis of art forms found in schizophrenia. Then he set out
to interpret them by means of Freudian concepts. He used the
concepts of repression, regression, condensation, dissociation,
identification, and symbolization. He found that the drawings
were similar to dreams in their construction and mechanism, and
that by the help of the above tools of the unconscious he was
able to understand their manifest and latent content. He said
that schizophrenia was a compensatory illness. This study was
an exploratory one; his approach was a subjective one in that
there exists differences of opinion among even analysts on how
to interpret a given symbol. He felt that some of the abstract
and primitive symbols needed to be analyzed in terms of the
genetic or collective unconscious. Thus it can be seen that
whether one applied a Jungian or a Freudian approach to inter-
pretation of the drawings would alter the meaning. This
introduces another variable in a field that already has an in-
ordinate number.

Jung and his pupils evolved what they called "Art
Psychotherapy:\1/ the patient cathetized via the brush or
crayon; what they could not put into words, they put onto the
canvas. This method was especially successful with children
where the difficulty arises there of inability to verbalize

1Harms, Ernest, "The Arts as Applied Psychotherapy,"
Occupational Therapy, 33(1944) pp. 51-61.
their emotional processes.

Baynes,¹ in his book *The Mythology of the Soul*, used the Jungian approach to re-examine the work of two of his patients who were borderline schizophrenics. He said that he did this because he had found himself unable to understand their material. At times he was hard pressed to fit the patient's products into some of the Jungian concepts, i.e., fourfold functions of Individuation, "soul image," as well as some of the specific archetypes. He had also collected a large amount of mythological, legendary and literary allusions to use in interpretation. He spoke of Key Drawings and the creation of unique symbols in reference to their art work; he found that schizophrenics were more willing than most patients to express their fantasy life in pictorial attempts. He stated that the drawings themselves played a role in the process of recovery of these patients. As an aid to interpretation, he let himself be guided by the patient's comments, associations, and reactions to their productions.

Naumburg found that two similar paintings were analyzed by Baynes from the Jungian standpoint and by Gustav Eychowsky from a Freudian standpoint. Their interpretations were quite divergent.²


²Naumburg, op. cit., p. 21.
Pfister also took a psychoanalytic approach to the drawings produced by his patients. Anastasi and Foley found an "internal inconsistency" running through his interpretations.\(^1\)

A method, therefore, which even contradicts itself at different times, is too subjective and variable to be completely trustworthy. This is one of the weak points of using the analytic technique as a means of diagnosing schizophrenia on the basis of drawings.

Kohr,\(^2,3,4\) was the progenitor of the experimental method in the field of spontaneous art. In 1906-1907, his was the first attempt to set up a test to study deviations. He felt that the spontaneous productions of psychotics could be used as a method of diagnosis and therapy.

His study was based on the construction of drawing tests: he had his patients copy simple figures, and compared the differences of original and copy; then he attempted to interpret the deviations. He had his patients complete drawings and noted where the work of different types of psychosis differed, and had them illustrate stories and so illustrate what was pertinent to them; this, if the principle was

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\(^1\) Anastasi and Foley, op. cit., p. 30.

\(^2\) Ibid, p. 11.

\(^3\) Born, W., op. cit.

\(^4\) Mosse, Eric P., op. cit.
reversed, would be the Thematic Apperception Test as we know it today. He also compared drawings made by psychotics before and after the onset of the disease. He carried out other experiments in which he had the patient freely associate on the basis of their spontaneous productions; he then analyzed them and attempted to set up deviational indices.

Mohr was evidently aware of the diagnostic value of their differing responses, yet he was empirical. He maintained no controls and did not attempt to statistically evaluate his results. As a result of his drawing experiments, he came to the conclusion that these drawings served as an indication of internal occurrences in the life of the insane, and as such had diagnostic value. Mohr felt that there was evidence of the progressive deterioration of the personality in schizophrenia, since he found that at the beginning of the psychosis one could get some resemblance of meaning from the patients and their productions, but this became impossible once the psychosis had advanced.

Projective tests, such as Rorschach's, Goodenough's, the Thematic Apperception Test, which are used in the diagnosis of both psychotic and neurotic patients, all stemmed from this. To find a method for scoring these spontaneous painting objectively and to have the results reliable as well as valid so they could be used diagnostically presented an almost insurmountable barrier. For the artistic productions of the maladjusted present many variables. They do not lend
themselves readily to a scientific approach, provided more experimental approaches that were scientifically controlled had been attempted. The techniques which have been used with the graphic arts have attacked the problem from many angles.

Reitman, in 1939, experimented using a task and technique controlled method. The faces he used were twelve in number and depicted a man, a woman, laughing, smiling, angry, astonishment, happy expectation, despair, pride, depression (which one-third of the patients could not interpret at all), monk, and girl. After being shown the pictures for three minutes the patient was asked to name each and then to reproduce the simplest one to six from memory. There were only 13 subjects in the group; six schizophrenics, four depressives, three hysterics. He selected typical patients whose diagnosis was not in doubt. The materials used were pencil and paper. But on the basis of such a small sampling he could form no general conclusion.

Schube and Cowell, at the Boston State Hospital in 1939, conducted an experiment with 168 patients, 27 of whom were schizophrenic. The subjects were allowed free choice of medium which included oils, water colors, pastels, charcoal.


pencil and clay. Ten to fifteen people participated at a time. Instruction was not given. They felt that in the adjusted individual activity and restraint in his drawings was balanced. When the patient was psychotic his R-A index fell below 40 or rose above 60, below 40 indicating restraint and above 60 activity. Though 26 of the schizophrenics fell into A group and only 1 in the R group, this index as a means of diagnosing schizophrenics is not too useful, since also in group A were paranoia, psychopathic personalities, alcoholic psychosis, and manic depressive psychosis. The R-A index does not differentiate finely enough between the various psychoses.

Anastasi and Foley, who in 1945 presented an extremely fine survey of the literature on artistic behavior in the abnormal concerned with spontaneous productions, in 1942\(^1\) presented an experimental study using 340 patients and an equal number of normal control subjects. This was a step in the right direction. They employed free choice as well as four controlled tasks to study their drawing behavior.

Schmidl-Vaehner,\(^2\) in 1946, used both a free and controlled method of approach in her experiment on 55 Sarah Lawrence college students. The use of the medium was free, and

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\(^2\)Schmidl-Vaehner, T., "Interpretation of Spontaneous Drawings and Paintings," Genetic Psychology Monographs, 33(1946) pp. 3-70.
they were allowed a free painting, but there were also certain controlled tasks assigned to these 17-19 year old freshmen and sophomores. They were told to draw a series of human faces in the following order: (A) any human face student liked, (B) an ugly and a beautiful face, (C) a self-portrait by heart and without a mirror. Then they were directed to portray a group of human figures.

She statistically evaluated her results. Munroe\(^1\) feels after comparing Schmidl-Waehner's Art Technique with the Rorschach and Lewison's Graphioiclogical analysis that equally good results were obtained with all three projective methods. Their findings complemented, corrected and confirmed each other. He feels that the ideal testing program would include at least two projective tests and a variety of other types.

Thus it would appear, according to Munroe, that Schmidl-Waehner's art technique is reliable enough for cautious applications. One objection to her method is voiced by the author herself,

"This method cannot be used without understanding of dynamic, that is not without understanding also the conditions and limitations of dynamic psychology, and not without experience with the material."\(^2\)

Blind diagnosis based on no personal knowledge of the student

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\(^2\) Schmidl-Waehner, op. cit., p. 67.
and the Rorschach inspection technique were used in this experiment.

In 1949, Karen Machover\(^1\) presented another empirical interpretation of drawings, this time of the human figure. She had amassed a large number of drawings, mostly from males over 16. While using Goodenough's Drawing-of-a-Man test, she found that study of the drawings led to rich clinical material about the patient not related to their intellectual level. On page four of her book she stated,

"What has been lacking and I trust that the work is now being done in drawing analysis will supply, is a degree of systematization or analysis of the graphic product which is at once comprehensive, communicable, and does justice to the intricacies of personality."

Fred A. Stonesifer\(^2\) in 1949 presented one of the few objective, clinical, and scientifically reliable and valid studies in the field of spontaneous art. He came to the conclusion that the human figure drawn by itself will not differentiate between schizophrenic and non-psychotic adults. This seems to invalidate a good deal of Karen Machover's carefully written book on drawing analysis using the human figure. On the basis of Stonesifer's work, John N. Buck's\(^3\)

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1Machover, op. cit.


H-T-P Technique based on patient's drawing a person, a tree and a house needs to present more statistical evidence of its value as a projective technique.

There have been several attempts to produce mechanical means that would simplify the scoring of spontaneous art productions. Barnhart's \(^1\) kymograph like recording system would not be applicable to painting however, even if one wished to make use of it to record the stages gone through in creating a drawing. Kutash \(^2\) presented a "simple scoring device for quantifying graphic productions:" it consisted of an 8x10½ piece of clear and colorless celluloid which was marked off by red lines into 64 equal boxes. Through it one could measure objectively the amount of space taken up by the various colors used and other similar tasks. One could also increase or decrease the number of squares if it suited their purposes. None of the devices have proven their value yet but they are interesting approaches to the problem of quantitating spontaneous art.

As reported by Anastasi and Foley, Kouma in 1908 and Herzbeck in 1930 were two of the earliest studies done on the art work of the pathological child.

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Appel, in 1931,\(^2\) used blots to stimulate children to draw. These drawings and the child's associations with them, which he encouraged them to verbalize, was part of the diagnostic interview. He suggested asking the child to draw his "home" and to discuss it, because he felt the concept of "home" and of people the child associated within his daily environment would reveal his most powerful impulses. He felt the physician should interpret for the child.

Bender, from 1932-1946, contributed a number of articles dealing with maladjusted children's spontaneous art work. She demonstrated that the artistic productions of children are representations which are closely allied with their fundamental emotional problems. New discussion of the nautical theme in children's art was a typically Freudian descriptive study; it could be of no practical value in setting up standards for diagnosing mental abnormality in children. Her article on children's animal drawings and their totemistic significance was also abstruse, psychoanalytically oriented, and clinically not applicable. Her discussion of the use of art as a means of therapy in dealing with the mental disturbances of youngsters indicated the value of spontaneous art.

She felt graphic art could be used to establish rapport with children who could not verbalize for physical or psychical reasons, that it could be used to obtain insight into the

\(^2\)Appel, K. E., "Drawings by Children as Aids to Personality Studies," American Journal of Orthopsychiatry, 1(1931) pp. 129-44.
child's unconscious life, revealing conflicts, emotional drives, fantasies and complexes for which the child could use no other means of expression. She felt that spontaneous paintings could be used therapeutically as an outlet for expression and sexual tensions. Lastly, the very art classes which the child attended at Bellevue she felt were a socializing force. She felt that by producing these drawings the child sees his fantasies and unconscious life for the first time in concrete form and thus is aided in dispelling them.

Her work with schizophrenic children, a clinical study of about 100 children under the age of 11, contributes much of interest to the field of spontaneous art. It offers some provocative ideas that should be followed through to see if they are diagnostically reliable and valid.

Des Lauriers and Halpern, working at the psychiatric division of the children's ward at Bellevue, used a number of psychological tests on schizophrenic children before and after shock treatment. They discussed the children's drawing reactions to the Goodenough-Draw-a-Man test which, though intended primarily as an intelligence test, they used as a projective technique because it lent itself so well to an understanding of certain aspects of the schizophrenic child's personality.

There were no controls. The approximately 100 children tested ranged roughly from 4-11 years. This article was a preliminary work based largely on an inspection and empirical approach. A detailed statistical analysis is to be published, but it is still incomplete.

Margaret Naumburg, beside doing case work at the New York Psychiatric Institute, has devoted herself to extremely well written, from a literary standpoint, individual case studies of the art work of emotionally disturbed children, with an occasional group survey in the field. On the whole, her writings from 1943-1950 have a strong psychanalytical flavor. Her methods are reportative and descriptive rather than overly scientific. She stresses the drawing content and its use in psychotherapy as a means of gradually developing the child's insight.

Despert and Melanie Klien both believed in the use of drawings as an adjuvant to diagnosis and catharsis in therapy.

Erick, in 1944, also used a psychoanalytical approach to interpret and evaluate the art work of 200 children during a period of two years. The subjects of the experiment ranged in age from 3-15 years. They were given complete freedom of


choice by their art teacher.

From notes which were taken on the children's use of their voices while drawing, their choice of words, changes of mood and attitude toward their work or the teacher, he was able to draw some tentative conclusions. Of interest was what he considered a constellation that indicated deeply neurotic disturbances. A persistent repetition of a pattern picture, resistance to any use of color, smearing through longer periods, repeated contents of hostility, aggression and fear, indicated that the child needed psychiatric help. He inferred from his experiment that children's paintings were valuable material for personality studies and for diagnosis of acute as well as deeper-seated problems. He felt that, since by these means it was possible to observe deep-seated conflicts in children earlier than they would appear in overt behavior, and since it is possible to utilize such a set-up in public schools and child care agencies, this could become a valuable and economical means in terms of money and time for detection of such conflicts. He concluded that further observations were necessary, however, to get a sufficient amount of material for statistical evaluation.

Todd,¹ in 1945, stated that children's drawings could be utilized as a technique of child psychiatry to explore the mind content of schizophrenic children, since they revealed the

under-current of the unconscious, and thus were significant in revealing deeper levels of the mind.

Paula Elkisch, in 1948, on the basis of a longitudinal study of 2200 spontaneous art products of 25 children, whose age ranged from approximately 3-12 years, set up 5 paired antimonics as diagnostic criteria of adjustment and maladjustment. These antimonics were: Rhythm versus Rule, Complexity versus Simplicity, Expansion versus Compression, Integration versus Disintegration, Realism versus Symbolism. She used this scale in order to arrive at an objective evaluation of children's art products. She felt that these criteria had proved to differentiate the products of adjusted children from those of maladjusted ones. Two other criteria were used in conjunction with each of the above antimonics: Rigidity versus Inertness and Synthesis versus Centricity. She used a scoring system whereby a point, i.e., score of 1, is given for the recognizable presence of a quality indicative of the presence of a quality and a midpoint 0.5 if the presence of such a quality can not be decided. She felt that a predominance of symbolism in a child's productions between the ages of 5 or 6-12 is a symptom of neurotic disturbance. Compression indicated isolation, another diagnostic sign of neurosis. Disintegration, in her opinion, was a sign of

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eccentricity or even of a serious split in the personality, and
might be, if connected with other diagnostic traits (what these
traits were she did not signify), a symptom of schizophrenia. ¹/
She offered no statistical evidence in support of her theories;
her judgements were subjective.

¹/Ibid, pp. 237.
### TABLE V

**ALSCHULER AND HATTWICK**

**Some Aspects Pertinent to Disturbed Children**

<table>
<thead>
<tr>
<th>Clinical Sign</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color emphasized</td>
<td>Strong emotional orientation</td>
</tr>
<tr>
<td>Black</td>
<td>Intense anxieties or fears</td>
</tr>
<tr>
<td>Gray crayon-colored mass technique like easel painting</td>
<td>Emotionally disturbed</td>
</tr>
<tr>
<td>Focus on one specific abstract pattern so consistently that their work took on a strongly repetitive or even stereotyped character</td>
<td>Emotionally disturbed (painting pattern symbolic expression of their specific conflicts)</td>
</tr>
<tr>
<td>Painted highly repetitive</td>
<td>Emotionally disturbed (similar above)</td>
</tr>
<tr>
<td>Pattern-relative exclusion of other colors</td>
<td></td>
</tr>
<tr>
<td>Red - highly repetitive pattern-relative exclusion of other colors</td>
<td>Personality problems</td>
</tr>
<tr>
<td>Red - brief intensive drive to use exclusively</td>
<td>Personality problems</td>
</tr>
<tr>
<td>Purple</td>
<td>Some association with dejected and unhappy moods</td>
</tr>
<tr>
<td>Consistent overlay</td>
<td>Hiding strong personal feelings under some assumed pattern of overt behavior repression - conflict?</td>
</tr>
<tr>
<td>Black overlaid</td>
<td>Hidden fears</td>
</tr>
<tr>
<td>Separate placement - set or highly repetitive pattern</td>
<td>Conflicts may be present</td>
</tr>
<tr>
<td>Somewhat consistently restricted outline-worked within</td>
<td>More withdrawing self-contained insecure</td>
</tr>
</tbody>
</table>
**TABLE V - Continued**

<table>
<thead>
<tr>
<th>Clinical Sign</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling in of form (Shading)</td>
<td>Self-oriented or interlocked emotional drives - intensified feelings - strong emotional tensions</td>
</tr>
<tr>
<td>Painting within restricted area</td>
<td>Withdrawing, emotionally dependent behavior tendencies - restricts drives</td>
</tr>
<tr>
<td>Working over and over the same area</td>
<td>Strong emotional forces, repressed, withdrawing, fearful and emotionally dependent, less outgoing and more self-restrained, more emotional reactions, no self-confidence</td>
</tr>
<tr>
<td>Broken, unrhythmic, unrelated strokes</td>
<td>Rejected, not appreciated child</td>
</tr>
<tr>
<td>Use of one color-red, black, brown or purple</td>
<td>Child needs carefully considered guidance</td>
</tr>
<tr>
<td>Protective about product</td>
<td>Insecure, greatly absorbed in his emotional life</td>
</tr>
<tr>
<td>Circular emphasis</td>
<td>Dependent, not assertive self-centered effeminate pattern of behavior-withdrawing</td>
</tr>
<tr>
<td>Diagonal strokes</td>
<td>Relatively dependent, infantile behavior</td>
</tr>
<tr>
<td>Large output</td>
<td>Self-centered emotional behavior</td>
</tr>
</tbody>
</table>
Alschuler and Hattwick, in 1947, presented an important contribution relative to painting and personality. This carefully documented and statistically analyzed and validated study of 150 pre-school children, who ranged in age from 2-5, was based on the hypothesis that the feelings and drives which 2-5 year old children reflect in their easel paintings are also likely to be reflected in their overt behavior. They cautioned that in the use of this data it be kept in mind that:

"Here, as in every aspect of children's paintings, our generalizations meet with many exceptions, variations, and modifications."{1}

And that it was important to look for clusters of behavior patterns and to come to no conclusions on the appearance of one sign.

In volume one, they discussed color choices, line and form, space usage, and spatial pattern. In volume two they presented biographical summaries of each child and the statistical analysis.

In conclusion, they stated that easel painting may be of particular diagnostic value in connection with those withdrawn, repressed, or shy children who either, consciously or

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2Ibid, p. 94.
unconsciously try to cover over or hide their real feelings.¹

In 1949,² Ruth Windsor carried out a study which validated Alschuler and Hattwick's conclusions even more strongly. Her study proved to her satisfaction that easel painting used as a projective technique by a trained and experienced teacher is a valuable source of information.

Yet in the field of spontaneous art used as a diagnostic method with maladjusted children to show the presence of schizophrenia there is still no definitive work, still nothing but empirical contradictory offerings, and this fully 75 years after Max Simon in France presented the first exposition of psychotic expression in art, and 50 years after Ales Hrdlicka in the United States wrote the first article on psychotic art.

CHAPTER III

EVALUATION OF TRAITS FOUND IN THE DRAWINGS OF SCHIZOPHRENIC CHILDREN

There exists a greater number of schizophrenic children than is popularly believed, or than are found in our mental institutions or special schools. Kasanin, in 1929, showed that out of 6000 patients admitted to the Boston Psychopathic Hospital between 1923 and 1925, 160 were under 16 years of age. Of these 65 were classified as psychotic and 21 were schizophrenic. Greene, in 1933, found symptoms pointing to a psychotic condition in 349 out of 1488 children who came to the out patient clinic of the Fernald State School. The incidence of schizophrenic children among maladjusted children is proportionally high. Lurie in 1936 reported that 2% of a series of 1000 behavior problem children were psychotic. Of these 15 were classified as schizophrenic.

Angus, in an article in the American Journal of Mental Deficiency in 1949, pointed out that Potter in 1933 had spoken


of the danger of diagnosing schizophrenic children as mentally
deficient. Reviewing on this basis the admissions to the
Devereux Schools, Devon, Pennsylvania, he found that,"

"Out of 150 consecutive enrollments over a period of
thirteen months from August 15, 1946, to September 15,
1947, there were 43 cases or about 28% of the admissions
which could be diagnosed as schizophrenic, varying in
degree from unquestionable psychoses to less well de-
fin ed cases which, while not actually mentally ill,
showed so many of the characteristics of the condition
that they unmistakably belonged to the borderline
group. When the additional fact is considered that
grossly psychotic children cannot be admitted, it is
apparent that an even higher percentage would have been
recorded had the statistics taken account of all the
applicants instead of only those who could be accepted."

Peck and Robinovitch, in the American Journal of
Orthopsychiatry, October 1949, stated that more than 200 cases
of childhood schizophrenia had been studied and treated in the
children's ward of Bellevue Hospital over a period of 12 years.
Kinross-Wright said that at least 200 cases had been
recorded of schizophrenia occurring before the age of six.

As difficult as recognizing mental illness is in an
adult it is even more difficult in the child; the criteria are
ill-defined, and relatively few systematic studies have been
made.

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1 Angus, Leslie R., op. cit., p. 227.

2Peck, Harris B., Ralph D. Robinovitch, and Joseph B.
Cramer, "A Treatment Program for Parents of Schizophrenic
592-98.

3Kinross-Wright, Vernon, "The Diagnosis of a Schizo-
phrenia in Early Childhood," Digest of Neurology and
As shown above, schizophrenia in children can be confused with mental deficiency and with behavior problems. Greene\(^1\) felt that the reason for the confusion, in part, was because precise descriptive differentiation was not attempted. Since then several studies have been carried out by Mandel Sherman\(^2\) in 1939, by Bender in 1946,\(^3\) Despert\(^4\) in 1947, attempting to define and describe schizophrenic-like conditions in the child. Other studies have attempted to distinguish the schizophrenic child from the mentally deficient one. In the field of spontaneous drawing several distinguishing features have been cited: the size of details in a drawing and the size of single form elements in relation to the whole picture are usually mixed; the feeble-minded show a preference for one size,\(^5\) the feebleminded are apathetic in the selection of colors,\(^6\) the drawings of mental defectives are comparable with

\(^1\)Greene, op. cit.
\(^3\)Bender, Lauretta, "Childhood Schizophrenia," American Journal of Orthopsychiatry, 17(1946) pp. 40-56.
\(^6\)Ibid.
the drawings of normals several years younger, 1/2/ short arms in proportion to the figure drawn are found in feebleminded children's drawings, 3/ there is also an overall lack of proportion. 4/ None of these clinical signs are found in the drawing of schizophrenic children.

Since the clinical picture of childhood schizophrenia is so variable, it is extremely difficult to lay down precise standards for diagnosis, yet the schizophrenic child by definition

"reveals pathology in behavior at every level and in every area of integration or patterning within the functioning of the central nervous system, be it vegetative, motor, perceptual, intellectual, emotional or social. Furthermore, this behavior pathology disturbs the pattern of every functioning field in a characteristic way. The pathology cannot therefore be thought of as focal in the architecture of the central nervous system, but rather as striking at the substratum of integrative functioning or biologically patterned behavior." 5/

From this, one can assume that his art work also should be


4 Ibid.

5 Banden, op. cit., p. 40.
characteristically disordered.

The foe in childhood schizophrenia is time; the diagnosis of the insidious onset of schizophrenia in children is most difficult. Yet the consensus of opinion is that the earlier the entity is identified, the earlier can treatment be initiated and better results obtained. As we have shown earlier, descriptive methods can fail and the child can be misdiagnosed, or if the disease is just evolving its manifestations, can be overlooked. The child can be considered "just dreamy" or "the quiet type." If, in school, his work starts getting poorer, he can be considered lazy or inattentive. But the beginnings are so imperceptible, that subjective observations are not enough; we need a direct road to the child's unconscious but it cannot be a direct approach. England feels that we need a non-directive method in treatment, since a direct approach to the child's ideational and emotional psychic organization has yielded very unsatisfactory results. To carry it back a step further, we need a non-directive method in diagnosis too; not only non-directive, but non-verbal for, "Language developed to a degree of complexity is a product of a mature intelligence. Children, therefore, do not possess the

1 Despert, op. cit., p. 680.

facility to fully verbalize their feelings, nor are they capable of complicated abstractions."

Harms felt, "The normal child has... until the middle of the second decade, considerable difficulty in recognizing and describing even the most simple events of his mental life." Thus we see that, until after adolescence, the normal child has difficulty in expressing his feelings and affective processes. If this is true of the normal child, how much more true is it of the psychotic child. Though the schizophrenic child has excellent verbal ability, he often has linguistic disturbances, i.e. irrelevant statements, neologisms; he may be disoriented as to time and place, he may be withdrawn, reticent; then, too, there may be mental blocking, causing inability to respond verbally at times, or he may day-dream, all of which would interfere with accurate diagnosis, and establishing treatment.

There is general agreement that children's drawings are a means of self-expression which reveals the child's unconscious life.

Barnes felt that for the young child, drawing was a

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3Sherman, op. cit., pp. 36-37.
4Barnes, op. cit., p. 42.
language, a way of conveying ideas in which symbols and conventional forms were used, and often this language conveyed more than the child understood. For some investigators inferred that the child's emotional difficulties are revealed in his art work long before he has the capacity to verbalize about these psychic unrests. Even before he himself or those closely associated with him in his daily environment are aware of his aberrations they may be detected in his art work. Margaret Naumburg seems to illustrate this in her statement about John, a 10 year old behavior problem: "Thus through the liberation of the boy's authentic responses to life, personality difficulties began to be revealed in the language of art, long before he could deal with such topics in words." Thus if this is valid painting might reveal the presence of schizophrenia before it could be diagnosed clinically. If potentially psychotic trends could thus be recognized early, there seems to be at least a reasonable chance of the child's recovery. Angus feels preventive treatment in childhood schizophrenia is almost invariably successful, that that inaugurated later when the child manifests some of the stigmata results in many recoveries, and that treatment started only


2Angus, op. cit., p. 229.
when the clinical picture is clear can offer practically no recoveries. Therefore, if we wait to diagnose until the unmistakable acute episode calls the child's parents' attention to the malady and sends them to the psychiatrist, or more likely the pediatrician, we have thrown away our best chance of salvaging the child. Of a certainty, the acute episode is just a termination of many insidious indications that have gone unrecognized or unheeded.

Spontaneous art, then, because of its non-verbal character, and because it may reveal aberrations before they are diagnostically evident by other means, appears to be the method of choice to be used in diagnosing schizophrenia in children if one could find definitive and statistically sound clinical signs in their art work pathognomonic for schizophrenia.

According to Rapaport,\(^1\) painting is a valid projective technique. He formulated the projective hypothesis as follows: "All behavior manifestations of the human being, including the least and the most significant, are revealing and expressive of his personality, by which we mean that individual principle of which he is the carrier."

He lists criteria that projective criteria should fulfill in toto or in part.

Projective art work fulfills the requirement that "the

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realm of behavior to which the projective technique is applied should not be a conventionalized one nor one remote from the core of personality.  

He cites the advantages over clinical observation of a projective technique as being, (a) easy and objective observation...spontaneous art fulfills the first part of this statement but not the second. It is still open to the charge of being subjective. (b) Easy and objective registration...The elements in spontaneous art can be easily and objectively registered. (c) Systematization or scoring of the material obtained so as to permit direct intra- and inter-individual comparison. Though as yet no completed validated method of systematization or scoring of spontaneous art exists, Schube and Cowell's R-A index in 1932, Schmidt-Veheuer in 1943, Elkisch's 5 antimonics which were scored from 1 to 0.5 in 1946 and Buck's H-T-P technique in 1949, all have attempted to provide scoring standards, and Alschuler and Hattwick have presented the most accurate systematization, so far, in children's spontaneous art work. (d) The significance of the test and test reactions is unknown to the subject. Spontaneous art work as a projective method fulfills this standard completely.

In order to decide which, if any, of the theories advanced seem to offer some standard in differentiating

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1Rapaport, op. cit., p. 214.
schizophrenic from normal art in the child, a listing of the pertinent drawing deviations mentioned will be made. Many are without scientific justification; in fact, few could be cited as having been proved. Rather, they are working theories that seem to point to avenues that will provide new knowledge about the art of the schizophrenic child.

Most schizophrenic children are believed to be highly productive. Anastasi and Foley mentioned that schizophrenia is considered more conducive to creative activity than any other psychosis. Bender accounted for the large quantity of output on the basis of the accelerated creativeness of the six through twelve year old child; she found that they often showed remarkable art ability. Yet the child loses this productivity as he deteriorates during the disease process, and if schizophrenia has started early in the child's life and progressed rapidly, many will never show any productivity. Alschuler and Hattwick found in their studies that a large output was connected with self-centered emotional behavior. Children who were experiencing emotional difficulties preferred to easel-paint.

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2 Bender, op. cit., p. 45.

3 Alschuler and Hattwick, op. cit.
Re the use of the paper itself, Schmidl-Waehner\(^1\) found that psychotic children preferred extremes of size; they also showed a tendency toward formats of unusual shapes and sizes.

Des Lauriers\(^2\) stated that the quality of line found in schizophrenic drawings is almost always soft, delicate, and somewhat tentative. He felt that this light feathery quality might express the schizophrenic child's uncertainty and insecurity. It also seemed related to the general esthetic quality so often seen in schizophrenic children. Born\(^3\) also remarked on the schizophrenics sensitivity to line and highly developed esthetic sense. Machover\(^4\) found the faint ectoplastic line, as she called it, mainly in withdrawn schizophrenic's work. The excited schizophrenic used very heavy lines as graphic expression of their excess of motor aggression. Schmidl-Waehner\(^5\) referred to the short little strokes they used.

Harms in 1944,\(^6\) stated that the schizophrenic prefers

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\(^1\)Schmidl-Waehner, op. cit.

\(^2\)DesLauriers and Halpern, op. cit., p. 61.

\(^3\)Born, op. cit.

\(^4\)Machover, op. cit., p. 97.

\(^5\)Schmidl-Waehner, op. cit.

\(^6\)Harms, op. cit., p. 4.
yellow when painting; however, though Schmidl-Waehner agreed with him saying that the dominant use of yellow indicated an emotional disturbance, Mosse felt this could not be confirmed. Alschuler's findings indicated that yellow was used by her normal children when they were happy. On the other hand, she found that isolated color masses indicated withdrawing, emotionally dependent behavior. Viola believed that no normal healthy child would choose pale colors, but this does not say ipso facto that the reverse is true. Naumburg\(^1\) indicated that backgrounds unevenly painted in dark and sombre tones of blue-green and yellow-green are suggestive of a disturbed condition. Schmidl-Waehner carried this even further, saying that schizoid types and productive schizophrenics used black dominantly or avoided colors. Thus it is clear that concerning the schizophrenic child's choice of colors, nothing decisive is known.

Schizophrenic children's drawings frequently are below the normative level for their age; they scribble and "doodle" like much younger children. Bender\(^2\) cited the case of Marty: his first drawings were the simplest and most primitive; they consisted of a scribble similar to the work of children of one to two years.

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\(^1\)Naumburg, op. cit., p. 161.

Melanie Klein discussed the drawing behavior of Egon; without looking at the paper he would roll a pencil about between his hands and in this way produce lines. Out of these scrawls he then deciphered shapes. Vinchon called this the most elemental form of schizophrenic art. Becker and Helweg and Prinzhorn found similar responses in adult schizophrenics.

Other primitive representations of form elements were noted by Klein in Crete, a young schizoid. The spiral and vortex she used were considered primitive space perceptions. Bender, in her article on childhood schizophrenia tells of the most primitive use of vortical movement with graduated variations that is seen in the drawings of schizophrenic children. She feels this expresses their swirling motility, their impulse to action, their fluid ego boundary, so they cannot tell where their periphery ends and space begins, and lastly their uncertain center of gravity. This seems to typically represent the schizophrenic child and his problems. Des Lauriers also noticed this tendency to project a spiral

1Klein, op. cit., p. 106.

2Ibid, p. 95.


4Bender, Lauretta, op. cit., p. 44.

5Des Lauriers and Halpern, op. cit.
motion into the schizophrenic children's lines; he agreed with Dr. Bender that it reflects bodily disturbance and that it apparently coincided with the patient's own whirling sensations. Sometimes this vortical movement was just shown indirectly as an effort to introduce movement into the picture, while at other times the child might encapsulate a figure in spiral lines to portray his sensations. Bender found that even in copying a circle or a square or a triangle or a diamond, they showed a tendency to use the old primitive responses of vortical movement plus their more mature capacities. This feeling of rotating and whirling is found in their motor play and is expressed in their dreams and fantasies as well as in their art. Bender's description of schizophrenic art bears repeating: "The boundaries of circles are uncertain and may be gone over several times - the centers of circles are uncertain; there are no points but many little circles, and for the same reason angular and crossed forms are fragmented."¹ In order to have more of a vortical movement undoubtedly,

"Action cannot be readily controlled and figures are elaborated, enlarged, repeated. The total product makes a pattern itself with a great deal of fluidity to it based upon vortical movement. The perceptual patterns lose their boundaries and therefore their relation to the background. Motor compliance and cohesiveness - between the boundaries of two objects. There is also an effort to explore and fixate depth or third and fourth dimensions. In this well-patterned fluid matrix are areas in which the pattern is broken; a part of a figure is separated from the whole and made to rotate faster; a group of small circles is separated

¹Bender, op. cit., p. 46.
from the whole mass."1/
She feels the above is due to a disturbance in the time factor.

Werner Wolff2/ feels the circular or elliptical form signifies a tendency for limitation and protection. The inclusion of a smaller circle within the larger as in the above or of any smaller object suggests this tendency toward protection.

Schilder and Levine found: "In schizophrenic children the interest in abstract form problems may become paramount. It is almost as if the patient would have to start experimentation by using primitive forms and especially geometric forms to start with."3/ They feel these abstract forms have a definite meaning in connection with the child's central problems of schizophrenia.

They illustrate this need of the child to use primitive, geometric, abstractions by the case history of a 10 year old in which the circle, the ellipse, the round and oblong shape, the sinusoidal wave and crenations were distorted and transformed by compressing them and by adding arbitrary pieces to these forms. He felt that all children have to experiment with

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1Bender, op. cit., p. 46.


3Schilder and Levine, op. cit., p. 1.
geometric forms and work out their ideas of space and motility, but from there they progress to subjective representation and then realistic representation. The schizophrenic child turns away from objects and sinks back to the more primitive attitudes of space problems rather than progressing.

Viola, 1 in 1944, explained the geometric pattern and formal drawing of the neurotic child as a desire for protection. For interpreting these drawings, the reason for their having these aberrant patterns is important, but for diagnosis statistical proof that they occur is even more to be desired.

There is general agreement that schizophrenic art is symbolic. Neumburg felt that the schizophrenic substituted symbols for ideas. As an example of that symbolism one can cite the barrier; there is, according to her, in schizophrenic art a distinct tendency to erect a barrier down the middle of the page. It can be a jagged line, rocks, a tree, a lamp post, but the total impression given the observer is that of a split between two sides of the painting. She interprets this cutting off of the canvas as "the characteristic barrier between the conscious and unconscious." 2 She believes this feature to be pathognomonic of schizoid psychology, and feels it should be noted as a diagnostic sign. In her book on schizophrenic art,

1Viola, op. cit., p. 85.

2Neumburg, Margaret, Schizophrenic Art; Its Meaning in Psycho-Therapy, op. cit., p. 22.
there are drawings which illustrate this sign.

Alschuler, in her work with normal pre-school children, found that when there existed a pictorialized conflict, they use their dominant hand's side of the painting to express their learned responses and overt expression, while the less dominant hand's side of the canvas they express their more basic primitive drives and repressed feelings. This appears to confirm what Naumburg found.

Another trait of schizophrenic drawing in children is that of drawing over and over in an obsessional way certain pictures, that may or may not be completely stereotyped. Melanie Klein, mentions this in her discussion of Grete, a schizoid child, and of Ilse, who displayed marked schizoid traits. Naumburg mentions the occurrence repetitively of certain symbols and repetitive patterns in one of her patient's designs. Alschuler found that children who had repetitive painting themes were emotional, self-absorbed, too self contained, had generally inadequate adjustment, and evidenced a tendency to withdraw.

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1Alschuler and Hattwick, op. cit., p. 70.
2Klein, op. cit., p. 95.
3Ibid, p. 131.
4Alschuler, op. cit., p. 580.
Williams\textsuperscript{1} and Sherman\textsuperscript{2} both indicated that careful attention to details were characteristic of schizoid and schizophrenic children; this and the above trait combined might explain the tapestry-like effects that are sometimes produced.

Yet perseveration may occur in normal children's drawings, and as such just reflect the child's sheer joy in repeating a satisfying motor pattern. It is only when perseveration occurs obsessionally that it might indicate maladjustment.

"When the child draws the human form, it is essentially a projection of his body image and its problems; it is a self portrait."\textsuperscript{3} The child's drawings stress what is important to them. It shows the observer how the child experiences himself, and what his relations with the outside world are.

Therefore, it is not surprising that the schizophrenic child, with his body image problems, motility and perceptual disturbances, uncertainty as to his identity, and his drive for action, finds ready expression for his problems in drawing the human form. His drive for action seems to endow him with a remarkable talent for expression the human form in action. The

\textsuperscript{1}Williams, J. M., "Interpretation of Drawings Made by Maladjusted Children," \textit{Virginiac Medical (Semi) Monthly}, 87(1940) pp. 533-38.

\textsuperscript{2}Sherman, op. cit., p. 37.

\textsuperscript{3}Bender, op. cit., p. 25.
motility disturbance vents itself pictorially in producing figures encapsulated in spiral lines.\(^1\) The schizophrenic child's confusion in relation to his environment is revealed "in an inability to delimit clearly the boundaries of the body."\(^2\)

Thus, in his physical disorientation, he may in his drawings make an effort to introduce the external environment into the body of the person he has portrayed. The drawings, too, have transparencies which reveal through clothing and body all manner of internal organs, external objects, and other introjected items. Other bizarre dissociations were evidenced by Marty, a patient of Dr. Bender.\(^3\) In his drawing, the mouth was not in the head but down where the stomach should be. Yet Viola feels, "It is normal for young children to draw 'transparent.' The ancient Egyptians did it. Most children will stop doing it by eight."\(^4\) Machover,\(^5\) too, asserts that the normal child draws internal organs showing through the body, legs showing through trousers, and hair visible through hats. The

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The child's thinking at this stage is concrete and specific; he draws what he knows exists, not what he sees.

Therefore, though this may be a clinical sign for adults it is not for children in our age range. Of course, if the child introjects foreign objects as mentioned above, that is a moot point that needs further research for clarification, but transparencies per se must be discarded as indicative of abnormality in the art productions of children.

The schizophrenic child's distorted awareness of spatial relationships are also revealed in his drawings of the human body: a multiplicity of heads, arms coming off the head, hands protruding from the body without any arms, or even a series of hands coming out of all parts of the body.

But here too we have shown earlier that this is manifested in normal children till about the age of five. Past that age it might be considered pathological. Another aspect of their poor spatial relationship is displayed by their splintered forms, their bodily distortions, elongations, protrusions and deliberate omissions. Machover\(^1\) found that schizophrenic patients and extremely depressed patients omitted the arms as an indication of positive withdrawal from people and things.

The inner disorganization of the schizophrenic child is very obvious in his chaotic, disintegrating drawings.\(^2\) His

\(^1\)Machover, *cit.*, p. 62.

\(^2\)Elkisch, *cit.*
confusion about his body and its peripheries is displayed graphically in his preoccupation with, and fear of losing his extremities. The child has a tendency to emphasize what is important to him. Since the schizophrenic child has such confused ideas about his body periphery he has a tendency to carefully and bizarrely detail the hands, with special attention to the fingers and fingertips, the feet and the toes, the head and the facial features and the hair. In his preoccupation with these bodily extremities he frequently overlooks the rest of the body, giving it cursory treatment.

Bender made the only statement concerning the facial expression of the drawings of schizophrenic children. She said they expressed anxiety and terror.

Karen Machover described the facial expression found in schizoid drawings of adults:

"A combination of drawing features seen frequently in schizoid subjects is the facial expression reflecting autistic and narcissistic preoccupation, with large size and spaced or blocked, movement tends to reinforce the fantasy quality of the subjects ego concentration. In these spaced movement figures, the fantasy impulse to movement is compelling, but the figure remains trapped in the axis of his own narcissism and exhibitionism, resulting most often in a static pose, which contrasts significantly with the evidence of internal movement."1

Reitman2 found that in his experimental study of facial expression in schizophrenic drawing was displayed the widest

1Machover, op. cit., p. 42.

2Reitman, op. cit., p. 269.
variability and the strangest specimens; even in the simple sketches many mannerisms could be seen, which surprised him since they were all relatively mild and co-operative cases. The facial expressions themselves displayed a poverty and stiffness of expression which the patients were not aware of. Their technique of drawing also was strange; they tended to reproduce the linear elements, the straight or curved lines, and put them together like pieces of a mosaic. They started with the details of the face, the eyes, the lips, or nose, and ended with the outline, a procedure quite unusual in others. However, the group was too small to make any general conclusion from.

Intermingling of the facies appeared in the drawings of the schizophrenic child and seemed to be related to his physical and bodily dependence. He seems to seek other bodies' centers of gravity as if he has none himself. Thus in his drawings, people and objects seem fastened together, one line often serving for several objects. Brick, in 1944, mentioned that the confused child cannot elaborate forms, the forms tending to run into each other. Although he was not speaking of schizophrenic youngsters, the trait seems similar.

Highly productive, preferring paper in extremes of size and unusual formats, with a soft, delicate and tentative quality of line, having a lower developmental level in their drawings than their chronological age and intelligence would call for, showing itself in scribbling, doodling and primitive

1Brick, op. cit., p. 142.
representations of form elements, symbolic, perseverative and repetitive, paying careful attention to details, are some of the descriptions that have been applied to schizophrenic children's art productions. One must look at the whole, though, and not interpret each part. The signs have been listed, in order to show what investigators considered important diagnostically for each, but in the patient's work they cannot be singly lifted from the matrix of his art and considered pathognomonic. If they occur in constellations they may be definitive; taken singly cut of the context of the specific painting they can mean nothing.
CHAPTER IV

SUMMARY AND CONCLUSIONS

The question of whether one can actually diagnose schizophrenia in children on the basis of spontaneous art has still not been definitively answered. The findings of this study indicate that a valid and reliable test utilizing spontaneous art as a projective technique in the diagnosis of early schizophrenia in children is greatly to be desired, but that a great deal more carefully controlled and statistically analyzed research is mandatory before the formulation of such a group of indices could be justified.

The field presents great gaps of unverified knowledge which need further study. A tremendous mass of material and theory has been accumulated, empirically; now the task is to weigh the data, to sift out what appears pertinent and has the most supporters, and to finally verify them. Though 75 years of questioning and observing have passed, except for a few validated studies such as Alschuler and Hattwick's on the normal pre-school child, nothing is much clearer than it was in 1876. Not enough adequate research has been done, and it is not too difficult to criticize most of the above research.

There is little agreement in the field. A morass of signs that appear in the art of schizophrenic children have been mentioned which are considered indicative of the presence of schizophrenic processes in them, but they cannot be considered
definitive as these signs often overlap, appearing in other psychoses, in the feebleminded, in behavior problem children, and even in normal children. Then, too, there are contradictory opinions about color preference, to cite only one example. When there exists such divergence of interpretation of clinical signs, it indicates the need for comparable data based on controlled experiments with schizophrenic and normal children. Research has been done with children in the form of individual case studies; the preponderance of these studies is due probably to the ease of gathering and presenting this data. Many investigators base theories on the findings in one or two cases, but with such small numbers their results cannot help but be indeterminate. Horizontal, equated, controlled studies of the spontaneous art work of both schizophrenic and normal children are necessary and might elucidate these moot points of sign interpretation and result in more objective and less subjective, more scientific and less empirical criteria for diagnosis. The need for such comparable control data on normal children is strongly indicated by this survey.

Since there exist so many variables in the field, it would require more than one experiment to settle the many questions. One would have to equate age, sex, number of children, intelligence, and, if possible, one would try to match family background and amount of education. Children from two and one-half to nine years of age, for example, might be one of the qualifying factors. This age group is chosen because on the basis of this study this seems to be the time of onset of
childhood schizophrenia, and this is also the time when children's spontaneous printing is produced with least emotional restriction. After this age genetic studies have shown that children start being aware of the demands of the environment and attempt to make their drawings conform to adult standards of art.

In the last few years a few validated studies have been done, one dealing with normal children and the other pertaining to Goodenough's Draw-a-Man test, but there still exists no comparable study done with schizophrenic children whose statistical results are available.

This survey also indicates that in diagnosing schizophrenia in children via their spontaneous art work, no one sign will be sufficient, but a constellation of signs might be significant. There exists a need for numerical or other objective criteria to quantitate the art work and thus enable one to score it.

Then there is the semantic problem; the word usage is ambiguous, undefined, and inaccurate. There is little agreement in the field in this respect; one cannot draw a line between observation and interpretation. It is necessary to delineate clear, easily followed definitions that accurately and coherently describe a clinical sign in children's paintings. An established accepted phrasaeology is necessary if one is to have a dependable projective tool that can be easily and reliably interpreted.

There are many things to be said in favor of the use of
spontaneous art as a means of diagnosis. Painting is close to the child's interest. It does not require articulate verbalization which he is not mature or coordinated enough to produce, or which he may be afraid to produce, or which he may be too withdrawn and negativistic to produce.

Then, too, when the child produces a painting, there is no question of halo effect or the influence of the examiner's personality. It takes very little time to use and can be used with any child. It results in the production of fantasy material which is spontaneous and significant concerning the child's inner needs and conflicts. Once the child has finished his drawings one has a permanent, static, easily stored record of the child's condition. This would prove helpful in later follow-up or if the need ever arose of review of the whole course of the therapy.

Despite all that can be said in its favor, despite much encouragement, the use of spontaneous art in schizophrenics as a means of diagnosis is not a respected member of the projective testing family. As it now stands, there are no proven clinical signs that differentiate schizophrenic children's art work from normal children's. The question: "What do schizophrenic children perceive differently from normal children?" is still unanswered. There remains a need for some definitive work to be done; to either set up justifiable standards for differential diagnosis or to prove the impossibility of discovering pre-clinical schizophrenia in children via spontaneous art. The results of the research as it now stands is inconclusive.
CHAPTER V

PROBLEMS FOR FURTHER RESEARCH

1. A controlled, comparative study of the spontaneous art work of normal and schizophrenic children to detect significant differences.

2. The compilation of a standard list of terms to establish exact nomenclature.

3. Device a means for numerically scoring or otherwise quantitating spontaneous art products.

4. Re-evaluate some of the clinical signs mentioned in this study.

5. To attempt to formulate a test that will aid in the diagnosis of a pre-schizophrenic state in children.
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