FACIAL EXPRESSION IN SCHIZOPHRENIC DRAWINGS.

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THE literature on the drawings of schizophrenics is mainly concerned with their spontaneous artistic production. Some schools of psychotherapy use drawings systematically as an approach to the patient, i.e., as another way of obtaining free association from them. But apart from this, little work has been done on experimental drawing for diagnostic purposes. There is, however, the interesting work carried out by Mohr (1), who analysed drawings of mental patients of various kinds, and demonstrated in their production numerous clinical symptoms. His paper, classical as it is, has not stimulated many others to follow his lines. Sapas (2) collected systematically drawings of mental hospital inmates, which, in fact, were tests of visual memory. She followed, in her investigations, the technique originally proposed by Hickson in his work on *The Mental Fingerprint*. Lately, Becker (3) has contributed to the problems involved, in a systematic study, which will be referred to later.

In studying drawings of patients two methods are available: the patients are asked either to copy simple drawings, or to draw simple patterns from memory. The latter method seems to be the more fruitful one, since, besides memory, other factors come to light, which shape the reproduction of material. Since in schizophrenics, remembering in the strict sense of the word is not disturbed, these latter factors are certainly promising to test. They may be classified as motor (mechanical), psychomotor and emotional. The motor and psychomotor behaviour or its disturbance may influence the copying as well as the reproducing of a drawing, but the emotional factors are more active in drawings from memory.

Becker, in his analysis of factors that were prominent in schizophrenic drawings, found that drawing without concentration of attention is one of the characteristic features of the schizophrenic response. This is very similar to the " doodling " of normal persons, and Becker's observations have been fully confirmed in previous publications from the Maudsley Hospital (4), (5).

The " expression " which is seen in the schizophrenic drawings is the other feature discussed by Becker. This point is closely related to several interesting problems in the psychopathology of schizophrenia. There are various disturbances of expression in schizophrenics; the most common are mannerisms

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and grimacing. In analysing what is meant by these terms, which are merely descriptive, one faces the difficulty of distinguishing how far the mannerisms are a peripheral disturbance of movements also used in expression, and how far they are one manifestation of abnormal psychic happenings which the patient is compelled to express.

Difficulties in expression lead to difficulties in communication. The average interlocutor cannot distinguish an incongruity between emotion and its mode of expression, from an emotion which is accompanied by congruous expression but is itself incongruous to the total situation in which it develops. The patient, moreover, may have his difficulty in rapport increased by the fact

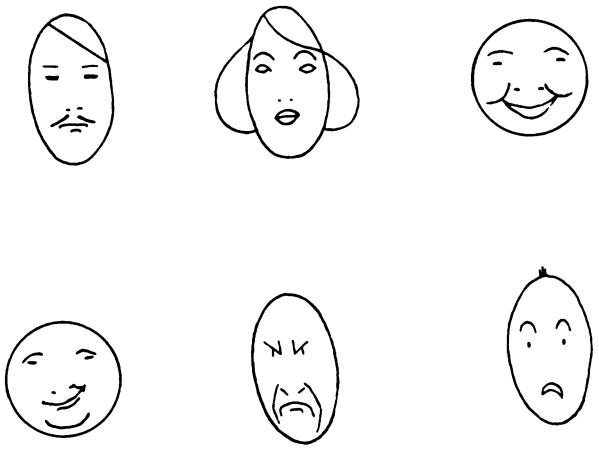


FIG. 1.—Nos. 1–6.

that along with his defect in the mechanisms of emotional expression he has a corresponding and congruent disturbance of perception of other people's gesture. Very little is known about this point. Therefore a few tests have been designed in order to gain some idea of the mechanisms at work and of the possibility of testing them.

Twelve pictures—(1) man, (2) woman, (3) laughing, (4) smiling, (5) angry, (6) astonishment, (7) happy expectation, (8) despair, (9) pride, (10) depression, (11) monk, (12) girl—were shown to the patient for three minutes, and he was asked to name each one. After he had been shown the whole series and had named all the pictures, he was asked to reproduce the six simpler ones (Nos. 1–6) from memory (Fig. 1). The material used was pencil and paper. Before reproducing the pictures, every patient was asked to draw a house and a man from memory in order to give some impression of his technical ability. On the following day the technique of the drawings was explained to the patient,

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the sketches were done again for him, and then he was asked to reproduce them from memory. On the third day the patient was given what may be called a "genetic" explanation. He was told how a smiling face develops and how one expresses this in drawing, and then he was asked to repeat the drawings again. As an example of this explanation Test III may be given:

1. In laughing, the shape of the face alters from an oval to a circle, because the cheeks are drawn outward and upward.

2. The space between the eyebrows and eyes becomes narrower, because the eyebrows and eyes are drawn closer together.

3. The nostrils spread outwards.

4. When the cheeks are drawn outward and upward, they are represented as two circles which cut the corners of the mouth. In actual drawing, only the curves cutting the corners of the mouth are shown, not the entire circles.

5. The corners of the mouth are drawn outwards and upwards, and the upper and lower lips are drawn as two curves, one above the other, the lower being smaller and deeper.

Not much of a practice effect can be expected in this way.

In the following paragraphs the experiments carried out on these three consecutive days will be referred to as Sets I, II, III.

The distribution of the patients was: Schizophrenics, 6; depressives, 4; hysterics, 3.

They were chosen at random, selected by the physicians in charge as being typical cases in which the diagnosis was not in doubt. The only other condition was that they should be co-operative and not confined to bed. The total number of drawings used was over 250.

Description of Pictures.

In describing the test pictures, the patients made no gross mistakes. The schizophrenics, as well as the hysterics and depressives, recognized the facial expressions and named them correctly. Test 10 caused difficulty for a third of the patients; they could not interpret it at all. But there were no misinterpretations, nor were the pictures taken as starting-points for ideas of reference. Nevertheless, the way in which some patients described the pictures in detail allowed some conclusions to be drawn with regard to the mental state. Depressive patients, for instance, made some comment on the majority of the pictures, such as: "This woman is just as unhappy as I am," or "How unhappy he is; why do you show me him?" A schizophrenic patient remarked: "This may have something to do with telepathy." Another one: "I can't draw: I do everything wrong. This is because a doctor has changed me into a Jewish personality."

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Spontaneous Drawings.

The drawings of house and man furnished some quite interesting material. In the hysterical group very little was found that might be interpreted as revealing the hysterical character as it is generally described. In other words, there were hardly any features that would point to vivid fantasy, sentimentality, or exaggerated emotional responsiveness. Considering the results of the other

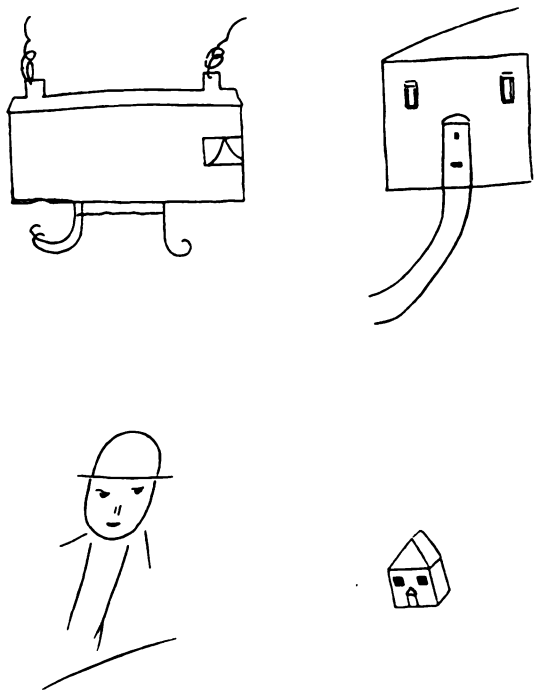


Fig. 2.—Nos. 1–4.

tests, which will be discussed later, one feels justified in assuming that the limited task set the patients prevented them from giving rein to their fantasy.

The depressive patients, in their drawings, showed some features which may well be interpreted as an expression of their emotional state. Some of them, for instance, exhibited a tendency to squeeze their drawings into a corner of the paper. This may have been due to their shyness, fearfulness or anxiety; it is often repeated, in spite of instructions to the contrary, as an expression of the aggressive-resistive attitude adopted by many depressives, if their delusions are doubted. Something similar was described by Mayer-Gross as a "closing-in" symptom in apractic patients. The depressives did not have such a circumscribed disability, but anxiety, fear, and the feeling of insecurity,

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may provide the psychological factor common to both conditions and explaining the symptom.

There was no characteristic difference in the size of the drawings between the various groups of patients.

Some of the depressives drew accurately, as one would expect them to, while others rushed through their drawings, apparently in order to get over the troubles of the test as quickly as possible.

The schizophrenic drawings showed the widest variability and the strangest specimens. Even in the simple sketches many mannerisms could be seen, which is the more surprising, since all the patients in the group were relatively mild and co-operative cases.

One of the patients, in several attempts, did not get farther than drawing a primitive outline of a human head, another produced a cephalopod (tadpole) (Fig. 2, No. 3), a third a picture of a tramp in torn and worn-out clothing. The houses also showed bizarre features, the most striking examples being Fig. 2, Nos. 1 and 2).

H. O. Pfister (6) has collected a large number of drawings of similar kind which show the same features. He also has discussed the relationship of these findings to the Rorschach test. It is not proposed to go into this subject here, as the huge literature on the Rorschach test cannot be dealt with briefly.

Reproductive Drawings.

Schizophrenics: Set I.—The reproduction of the test pictures revealed some mistakes in their understanding, not apparent in the patient's verbal responses. A characteristic instance was a patient who drew ears instead of hair when drawing Picture 3 from memory (Fig. 3, No. 2); such a mistake was, of course, not noticeable when he named the picture simply "a girl". This symptom became clearer still after Sets II and III of the tests had been given, as will be discussed below.

If one looks through the drawings belonging to the first set, one is impressed by the poverty and the stiffness of their expression. As might be expected here, some patients of other groups did likewise, but the non-schizophrenics criticized this defect in their drawings at once. They noticed it and were dissatisfied with the impression their drawings gave, whereas the schizophrenics did not notice or certainly did not mention this point.

In making an analysis of the origin of this lack of expressiveness, it should be mentioned that the schizophrenics were observed to draw with a technique different from that of the other groups. They tended to reproduce the linear elements, the straight or curved lines, and put them together like pieces of a mosaic. They started with details of the face, the eyes, the lips, or nose, and ended with the outline—a procedure quite unusual in others. For example, in Test III, Patient E— started drawing the eyebrows, then he drew the lines of

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the cheeks, then the other elements of the face, and finished by encircling these.

The results of Set II correspond to the previous ones. The patients' drawings improved to some extent owing to their learning and using some of the technical details, but the type of mistakes they made confirmed the view that, in fact, they drew lines instead of pictures; they used their newly-acquired knowledge, the little tricks of drawing, in a quite pointless way. They disregarded the total impression, or at least they did not use it to improve or to correct their pictures (Example: the vertical hairs on the head of picture, Fig. 3, No. 1).

The same is true of Set III of the pictures. If anything, one finds that the instruction has made the results worse. The schizophrenics have tried to

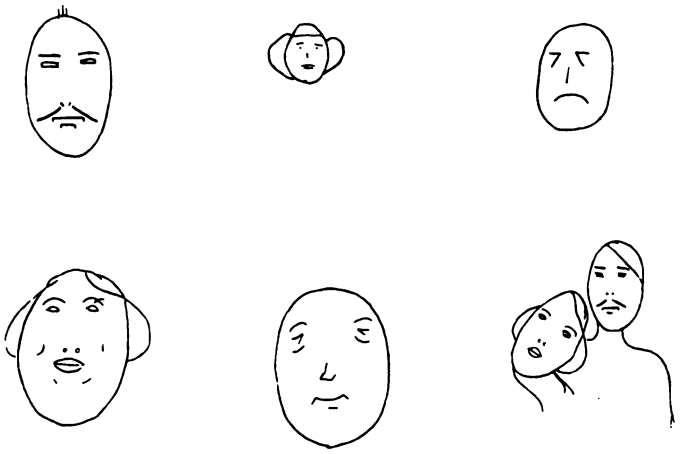


FIG. 3.—Nos. 1–6

put something into the picture which they were really unable to, and thus have produced worse mistakes than in Set II. This, of course, happens generally if one attempts something one does not understand or is unable to carry out. Results, similar in this respect, will therefore be found in the drawings of patients of the other groups as well.

Hysterics: Set I.—In marked contrast to the schizophrenics, the hysterics reproduced the picture with little regard to formal detail. It is striking to see how well they can produce a vivid expression; moreover, the expression in their drawings is generally the one required (Fig. 3, No. 3). This is a good example of how a patient, using a minimum of linear elements, produces a relatively satisfactory sketch.

Sets II and III.—The acquisition of little technical tricks (Set II) led to a further improvement in the results; the patients enjoyed producing impressive

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details. In contrast to what one might expect, the explanations given before Set III did not lead to any further improvement; the conscious knowledge of the meaning appeared to interfere with the natural expression which makes the pictures of the hysterics so striking.

Depressives.—The drawings of the depressive patients (Set I) have to be characterized mainly in negative terms; there are none of the features described as characteristic for the schizophrenics, nor those of the hysterics. They show most frequently the "closing-in" symptom, confirming the view that it is due to the emotional state (5). The changes in Sets II and III are not characteristic. The drawings are carefully done; the patients try to be obliging, and accept any suggestions.

Spontaneous Drawings Done after the Test.

Schizophrenics.—E—, the patient who drew the beggar spontaneously, willingly made use of the new technical method he had been taught. His schizophrenic eccentricity is well demonstrated in the way in which he uses his knowledge. A comparison between the titles and the drawings themselves is instructive. One sees clearly that he is able to express what he wants only in a very odd way; in addition, he lacks the ability (or the wish) to correct what he has done. The pictures "Anticipation" and "Satisfaction" are good examples of this (Fig. 3, Nos. 4 and 5). Similar, though not so striking, are some spontaneous drawings by two other schizophrenic patients.

Depressives.—The spontaneous drawings of the depressives are small in number; all the patients choose depression as their subject. A remarkable feature is the fact that in all specimens the facial expression, especially that of the eyes, is done remarkably well. The same was not the case, as will be remembered, with the test drawings (Fig. 3, No. 6).

Hysterics.—Two hysterics, who volunteered pictures, showed their tendency to exaggerate emotional expression, making full use of the method acquired. They also tried to make the picture tell a story, as it were—in other words, to use and to demonstrate facial expressions as means of communication. The subjects they were concerned with were courting, jealousy and pride.

Discussion.

The small number of our observations precludes any general conclusions; but the results give some idea of the applicability of the test and of the direction in which results may be obtained. To put it roughly, the grossest anomalies are seen in the schizophrenic group; difficulties both in understanding and in reproducing facial expression were demonstrable. In the hysterical drawings there were no features which were not comprehensible to a normal person. It was the hysterical character rather than a hysterical illness that

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could be found in these drawings. In the drawings of the depressive patients a reflection of their emotional state is to be found, just as in their comments on the test pictures. There is certainly no gross discrepancy between what they express in their drawings and what they intend to express. It is not clear how far motor retardation influences their results; only comparison between larger groups of more or less retarded and non-retarded patients could give information on this point.

Turning now to the schizophrenic group, which formed the centre of our interest, we find in their spontaneous drawings peculiar features which are well in keeping with clinical symptoms of the state, and may be regarded as graphic illustrations of them. The test designed for the recognition of facial expression failed to reveal any, but as other results suggested that some ability to recognize this does exist, it may be suspected that the particular design chosen was too easy. It may be possible to make it more difficult and more suitable for bringing out the particular incapacity. Observations on patients who have agnosia would suggest that stylized or schematized drawings are more difficult to recognize than the photographic type of reproduction. In schizophrenics who favour stylized and diagrammatic drawings in their production just the opposite may be the case.

The lack of expression in the test responses of the schizophrenic patients corresponds to what we see in many of their spontaneous drawings; it is hardly necessary to mention that this is not true of *all* schizophrenic productions. Some of the work published by Prinzhorn, Pfeifer and others, and many specimens in the Maudsley Hospital collection, are full of peculiar expression. Thus we can state only that this stiffness of expression occurs solely with schizophrenics. It has its clinical analogy in the "inadequacy of facial expression" and perhaps in the loss of gracefulness of movement often emphasized as an early symptom of schizophrenia. In a previous paper from the Maudsley Hospital some formal features in schizophrenic drawings have been discussed in the light of clinical (i.e., psychological) symptoms or as part of a general disturbance of behaviour (mannerisms, repetition, stylization). Observation during these tests helped to give information as to the origin of the symptoms. We were unable to demonstrate with certainty any anomalies of motility in the more limited sense. This could hardly be expected, since only a coarse disturbance in the dynamics of movement could become visible, statically, in a drawing.

The mosaic-like technique seen in our schizophrenic patients could, one might suppose, be elucidated by the patient's self-observation during drawing. Unfortunately, the patients were not helpful here: they remembered the detail rather than the whole; the picture dissolved into various curves and lines. A normal person sees more readily the expression of such sketches as those shown to the patients in this experiment, and consequently attempts to represent this expression rather than details. It is true that the less skilled a person is

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in doing such things, the more he will rely on the visual memory of the actual lines, but he will criticize himself in the light of the results as a whole. The fact that our schizophrenics did not do this seems to be best explained by assuming that they do not see the idea in the drawings or, at least, that the essential total impression does not force itself on them as it does with other patients or with normal people. The schizophrenic patient may call the picture " unhappy ", but what he really draws is a construction of lines. It is neither the perception nor the execution that is disturbed as an integrated entity, but the correct accentuation and evaluation of the sensory experience. This special tone of the experience, and the use the individual makes of it, are certainly determined by emotional feelings (which may be partly conditioned by his personal history), impairment of which is often an early, if not the first, sign of schizophrenia.

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