A PSYCHO-ANALYTIC APPROACH TO THE DIAGNOSIS OF SCHIZOPHRENIC REACTIONS*

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THE purpose of this paper is to describe the manner in which psycho-analytical concepts and theory may contribute to the difficult problem of diagnosis in schizophrenic reactions. At the present time there is an increasing realization that the criteria which are used in the diagnosis of these conditions are unsatisfactory, not only because they have a low prognostic significance but also because they fail to provide the research worker with discrete clinical concepts which he can use in physiological or psychological investigations. As Stengel (1960) has pointed out, the criteria employed in the diagnosis can vary extensively within the same hospital quite apart from the inevitable differences which exist within the one country and from country to country. It is the wide variation in what is called schizophrenia which has vitiated so much important and worthwhile research in clinical psychiatry.

A frequent obstacle in the recent case results from the difficulty of differentiating between a schizophrenic and a manic-depressive reaction. This is particularly true if the patient is excited or manifests pronounced affective reactions. Even the solution provided by the establishment of a schizo-affective syndrome has not found a universal acceptance. Mayer-Gross and his colleagues (1954), for example, are quite unsympathetic to the conception of a mixed or atypical condition. They say that "No system of diagnosis can be regarded as satisfactory which relegates a large proportion of all the cases seen to a category of this kind, a group of cases united only by their exclusion from other groups and without aetiological, psychopathological or prognostic implications . . . It seems to the authors a more promising approach to include atypical or mixed states into one or other of the two main diagnoses. . . ." In spite of this authoritative statement many clinicians are still reluctant to abandon a diagnostic category which takes cognizance of the prevalence of clinical states which are characterized by both schizophrenic and manic-depressive features.

The argument which this paper will present consists of the view that it is possible to observe and describe the changes which affect cognitive processes in patients who may be suffering from a schizophrenic reaction. It is further asserted that psycho-analytical theory (metapsychology) provides a means whereby these phenomena may be conceptualized, thus leading to the isolation of clinical data which can be designated schizophrenic.

Psycho-analytic theory draws the cognitive functions within the compass of the ego concept. Attention, concentration, perceptual processes, conceptual thought, memory, control of the voluntary musculature, judgment and reality testing are designated ego functions. The ego comprises a series of differentiated and integrated mental processes which may be contrasted with the processes designated unconscious. Much ego activity proceeds preconsciously and indeed, as Freud showed, the operation of the defensive function is entirely unconscious.

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The cognitive processes mediate environmental adaptation. It is due to their development that the individual can communicate verbally, can plan and initiate action and judge whether or not a particular thought or percept is appropriate to the situation in which it arises. With the aid of the reality testing function a distinction can be made between "inner" and "outer"—between thoughts and images on the one hand and percepts on the other. In recent years Rapaport (1951) has drawn attention to the fact that in the healthy the level upon which cognitive processes function alters in accordance with the mental state. There are different forms of cognitive organization which characterize the state of attentiveness, day-dreaming, the hypnagogic state and the dream. All these different mental states are associated with a special condition or state of consciousness which is an intrinsic aspect of the cognitive organization.

The Cognitive Organization Characterizing the State of Attention

The cognitive organization appropriate to the state of attention necessary for the assimilation of new knowledge is typified by the operation of specific mental processes. The psycho-analytic study of mental processes consists of an examination of their dynamic, economic and topographical aspects. It is a comprehensive description of this order which Freud (1915) called metapsychological. The dynamic aspect has enjoyed the greatest popularity both inside and outside of psycho-analytical circles. When confronted with clinical data the psycho-analyst asks himself the same question—to what extent is a particular conscious thought, feeling, behavioural activity or symptom the outcome of unconscious conflict. He speculates about the phantasy content of these conflicts; continuously looks for evidence of a failure of repression and tries to assess the role of other unconscious defence mechanisms.

In the case of neurotic reactions dynamic and economic aspects bear a positive relationship to one another. Repressed phantasies provoke conflict when their cathexis (energic "charge") reaches a certain level of intensity. When the conflict threatens to erupt into consciousness the sequence of anxiety, defence and symptom formation ensues. If, however, the cathexis of the repressed material diminishes then the conflicts cease to exist. In the neuroses, psycho-analytic therapy tries to provide a new means of discharge for these cathected phantasies and so invalidate the need for anxiety and symptoms. In the psychotic reactions on the other hand the relationship of dynamic to economic features is not so clear.

According to Freud attention and concentration are only possible whenever the object of the attentive process—whether perceptual or ideational—is insulated from extraneous and internal stimulation. This special state of consciousness is created by the presence of counter-cathectic barriers ("filter mechanisms") which restrict the entry into consciousness of irrelevant percepts and of inappropriate thought content.

The cognitive organization which operates when thinking is employed with the aim of communication or problem solving includes more than this. It also embraces the means whereby the thought processes find representation. This takes place through the agency of verbal symbols. Verbal symbols provide a framework for conceptual thinking and thus distinguish it from the undifferentiated and primitive thought processes of the unconscious. There exists a hierarchy of concepts which is organized according to the degree of abstraction inherent in the concept. There are simple concepts which represent concrete objects and there are complex concepts representing abstract ideas.

The role of the concept in disturbances of thinking was first examined and described by Schilder (1920). He showed that in the course of normal development concepts come to fulfil the function of signposts for directed thinking and purposive activity. These "mental structures"—for want of a better term—provide a series of fixed positions relatively free from the influence of wishes, needs and affects, enabling the individual to adjust to changing situations. As Rapaport (1951) puts it, "In a world of constant change, lacking stability, in a world of piecemeal perception without synthetic integration, no action is possible . . . this is where concepts come in: they extract out of the world of objects the most constant and reliable features and provide thereby reliable orientations and objects for action." Words representing things and ideas come to enjoy in the course of task and problem solving, a freedom from the intrusion by other ideas with which they may have been associatively or symbolically linked during early phases of development. Thus concepts enable the individual to perceive and order the world in a meaningful way and with this as a basis contemplate and initiate appropriate behaviour. It is the presence of concepts—discrete and autonomous verbal ideas—which enabled Freud (1900) to describe thinking as a form of trial action.

Thus far the formal aspects of the cognitive organization which serves attention and concentration has been considered. It is now appropriate, therefore, to refer to the dynamic aspects of these processes. Freud showed on numerous occasions that in the normal and psycho-neurotic individual alterations in these mental processes may result from the impact of repressed conflicts. Complaints of difficulty in concentrating are extremely common in the neuroses and they can frequently be traced to the influence of the repressed. In certain instances intellectual functions have become instinctualized and are thus subject to the same limitations as are imposed upon the outlet of sexual and aggressive phantasies and wishes. In the present context this dynamic aspect is not of primary importance, as it is hypothesized (Davie and Freeman, 1961a) that repressed conflicts in schizophrenic states do not, as in the neuroses, find substitute expression in the symptomatology.

The Cognitive Organization of the Dream State

The cognitive organization characteristic of the dream state differs qualitatively from that described above. Self-awareness is either diminished or changed in quality and thus the sustained attention possible in waking life is absent. Dreams find their expression through the medium of the visual image. Many years ago Silberer (1909) and others demonstrated that the approach of sleep was characterized by the replacement of thoughts (verbal ideas) by visual images. According to Freud (1914) this can be understood as the result of what he called a formal regression. With the onset of sleep an archaic mode of thought process is re-established which has much in common with the languages of ancient times. These archaic forms of mental processes are pictorial and concrete. Thinking is therefore tied to the immediate perceptual world and in the absence of a symbolic (verbal) representation of objects the expression of logical relationships is confined to the actual manipulation of the perceptual data. Only with release from the object and its substitution by verbal ideas is thinking liberated from its tie with the perceptual situation. This may be described in psycho-analytic terms as the transition from the primary to the secondary process. Thinking can now continue independently—the perceptual organization having been replaced by the conceptual.

During the psycho-analysis of dreams the mechanisms which govern the direction and fate of these archaic mental representations become apparent. Their effect is to bring about even greater changes in the form which the dream images assume. This distortion of the latent dream thoughts initially derived from preconscious ideas and impressions of the dream day is the result of the dream work. Its degree and extent is dependent upon the activity of the dream censorship. These processes can be seen at work in the following dream.

The patient was a young man of 23 who had undertaken psycho-analytic treatment on account of psycho-neurotic symptoms. His dream was as follows—"He sees a black vase which has an inscription upon it." This dream occurred on a Sunday night and had no affective accompaniment. On the previous Friday the content of the analytic hour had concerned a break of two days in the analysis which was to occur 12 days later. The patient's material indicated that his separation fears were largely inspired by unconscious death wishes. As on the Friday resistance was pronounced. His only reference to the dream was to articles on Freud's birth in the Sunday newspapers. As the vase had reminded him of a Roman funerary urn he had immediately thought of a writer's description of Freud's work as archaeology of the mind.

He left the dream and talked about his loneliness at the week-end. The noise of a cistern outside the consulting room reminded him of an occasion in childhood when he had locked himself in a lavatory and was unable to get out. Thereafter he was always frightened at the idea of being locked up. He recalled a childhood phantasy of being caught in a drainpipe and the precursor of this phantasy which had consisted of a fear of falling into the lavatory bowl and being washed away with faeces. He returned to the dream with the appreciation that it was concerned with separation and death. When reminded of the fact that the centenary of Freud's birth had a hand in initiating the dream he said that on the night of the dream he had been reading a novel in which a woman died in childbirth. He passed on to recollections of his brother's birth when he was three years old and the distress that this had caused him. Thoughts of his mother at this time reminded him that on her death-bed she had jokingly referred to her oedematous abdomen as pregnant with child. The associations were accompanied by feelings of sadness and unhappiness.

This dream has been described because it illustrates with clarity the mental process conceptualized by Freud as condensation. The vase represented his mother's body, her death, the birth of his younger sibling and all the memories and emotions associated with these events. It also represented the psycho-analytical treatment and the immediate situation (i.e., the separation) with the analyst. A plethora of thoughts and feelings were condensed into this short dream. The dream-work had succeeded in denying to consciousness the sadness and depression which were inherent in the latent dream thoughts and thus preserved sleep.

Condensation describes the unifying tendency which is characteristic of unconscious mental processes and it is this trend which makes the mechanism of identification possible. Condensation stands in contrast to the differentiation of mental processes which characterize the cognitive organization operative during attention, concentration and in those techniques necessary for environmental adaptation.

There are, however, occasions when identification is incomplete in the manifest content of a dream and so reveals more clearly the merging process—the condensation—which underlies it. In the dream which follows the differentiation of the dreamer from other persons in the dream was defective. This lack of

discreteness might suggest a failure on the part of the censorship, but analysis of the dream indicated that this was not in fact so. In this dream the patient, who suffered from a depressive reaction, saw a procession approaching headed by a troop of cavalry. The officer in charge halted the column and walked to a coach. A woman in evening dress emerged and the officer began to tear off her clothes. As he did so the patient felt himself participating in the officer's feelings. In this dream the censorship did not operate against the patient's awareness of his sadistic inclinations. Knowledge of the patient gained in analysis showed that he was also identified with the woman in evening dress. The woman represented his aunt who had suffered a melancholic illness when he was an adolescent. She had been the object of his first sexual strivings and her image in evening dress provided the content of his pubertal masturbatory phantasies. The dream censorship acted against his recognition of the passive-feminine orientation of his libido.

In these two dreams the thoughts of greatest psychical significance did not appear in the manifest content. This was the result of displacement. Displacement has the effect of eliminating any correlation between the sensory intensity of particular dream images and the latent thoughts corresponding to them. The sensory intensity of dream images is the outcome of the condensation of numerous ideas with a common feature which makes their unification possible. It is the dream images with the greatest intensity which capture the attention of the perceptual apparatus. The situation is quite different in the waking state when thinking is purposive in aim. In this instance the importance of an idea is not dependent upon its sensory intensity. As Freud puts it—"In normal mental life, too, we find ideas, which, being the nodal points or end results of whole chains of thought, possess a high degree of psychical significance; but the significance is not expressed by any feature that is obvious in a sensory manner to internal perception; their perceptual presentation is not in any respect more intense on account of their psychical significance. In the process of condensation on the other hand, every psychical interconnection is transformed into an intensification of its ideational content."

The purpose of these illustrations has been to show that the form and operation of the processes which comprise the cognitive organization characterizing the dream state are of a different order from those of waking life. The former mode of cognition is one in which thought processes and perceptual processes are condensed and where there is an absence of the discriminating factor which enables the individual to differentiate himself from other objects in the world. It is, as Freud has pointed out, the sensory intensity of the condensation products which leads to their occupying the centre of the perceptual field.

The Cognitive Organization in Chronic Schizophrenia (Dementia Praecox)

I

Patients who have suffered for many years from what was previously called dementia praecox, or more recently nuclear or process schizophrenia, provide the investigator with a series of phenomena which can be taken as characteristic of the disease process, Examination of the cognitive organization in such patients offers the prospect of providing a base-line against which the cognitive processes in more recent cases can be judged and assessed. The nearer the clinical data in the new case approximates to the phenomena observed in

these chronic syndromes the more justified is the clinician in diagnosing the presence of a schizophrenic process.

All those who have had a close association with chronic patients have been impressed by the resemblance between the clinical phenomena and the dreams of the healthy. Striking similarities are to be found in the diminished powers of self awareness and the loss of the capacity for sustained attention. There are patients who have lost the capacity to discriminate visually between one person and another. As in the dream they are forever changing into someone else or are physically transformed. Other patients, nurses and doctors may be called by the names of those who have an affective significance for the patient. These phenomena are the result of condensation.

There are patients who have lost the capacity to discriminate figure and ground, as with one patient who complained that he could not distinguish the food on the plate from the plate itself—he said that the food seemed to have merged with the plate. Then there are complaints which indicate that the patient has lost the capacity for object constancy, thus leading to experiencing objects and individuals as changed in size and shape. Finally there is the condensation of sensory modalities, which leads to an equivalence of auditory and visual percepts.

The wide variety of unusual bodily sensations which may appear in chronic schizophrenic reactions does not have a counterpart in the usual run of dreams. Perhaps this is because the dream is characterized by the lack of what Federn (1953) called "bodily ego feeling". There are of course exceptions and one was provided by a patient who claimed that he left his bed in the night, passed through a wall and returned while his body remained in its usual place. The same patient said that he had flown from his bed and this experience can be likened to the typical flying dream. The same patient said that he had on occasions disappeared and lost his body. These experiences can be compared with the absence of bodily ego feeling in the dream. Apart from such unusual instances, however, the second group of schizophrenic phenomena which most resembles the dream are provided by the disturbance of identity.

The tendency towards the fusion (condensation) of self and objects resulting from the loss of the discriminating function is a prominent manifestation in chronic schizophrenia. Such phenomena are strikingly reminiscent of those dreams in which the manifest content shows a similar trend. Just as the dreamer recognizes his own feelings, sensations and wishes in another figure of the dream so the schizophrenic patient is frequently aware of penetrating or being penetrated by thoughts, feelings and even by the bodies of those around him.

In the group situation (Cameron, Freeman and McGhie, 1956) it is sometimes possible to observe behaviour which indicates how far the patients confuse themselves with those around them. In the case in question a patient "A", who had an explosive oral tic, became the object of patient "B's" interest. One day he sat beside "A" and stared into his face. "B" became the target for a cloud of fine droplets of saliva. As he turned away wiping his cheek he muttered, "I'm spluttering, I'm spluttering." Another instance of confusion was provided by "B". He kicked patient "C" on the shin. When he was asked by the doctor if his leg hurt, "B" immediately sat down, pulled up his trousers and examined his leg.

Another type of fusion is provided by a man who identified himself with a girl who had rejected him immediately prior to the onset of his illness. When he was moved from a closed to an open ward he said that he was very happy to be out of the other ward as it was wrong to keep Eva (the girl) in the company of so many men. In contrast to this form of identication are those patients who deny

their sex and identity. Numerous examples are given in the literature of the transient changes in identification which can occur in chronic schizophrenic reactions (Freeman, Cameron and McGhie, 1958).

The general tendency in chronic cases towards condensation and the movement away from detailed discrimination in the perceptual field is matched by the appearance of what Bleuler called (1924) "a peculiar kind of distractability". No doubt he described this phenomenon as "peculiar" because it differs so strikingly from the distractability of the manic patient. In the chronic schizophrenic patients this failure to exclude extraneous percepts from the stream of thoughts is not a continuous process as in mania. It can only be observed periodically and it is not associated with excitement or hypermotility. One patient whose statements were being written down on buff coloured paper inserted into his illogical and disconnected utterances—"I haven't kept so well since I was writing on the brown paper". Further examples of this phenomenon have been described elsewhere (Freeman, 1960).

The loss of discrimination and the trend towards condensation is to be seen equally well in the sphere of the thought processes. There is to be found a progressive movement towards the condensation of what were previously discrete and differentiated mental processes. When the illness has continued for some years it is not uncommon to find that a fragment of a sentence is all that remains of an elaborate delusional system which preoccupied the patient in the early stages of the disease. A detailed study will generally reveal that this phrase is a condensation product from which the delusional ideas may be reconstructed. Jung (1907) gave an excellent illustration of this process in his "Psychology of Dementia Praecox", and Bleuler (1924) described this same trend as it affects motor behaviour leading to apparently meaningless stereotypies.

As in the dream, concepts are altered in the direction of primitivization. This change can be observed when a patient no longer regards a clock or a television set as an object whose sole function is to record the time or provide entertainment. The concept of "clock" or "television set" is one which is exact and limited in its meaning and its appropriate utilization depends upon its remaining uncontaminated by other ideas and affects. Once this contamination occurs the concept is no longer independent and autonomous from wishes, needs and affects. It can no longer be used as an intermediary between thought processes on the one hand and reality adapted action on the other hand. It cannot be separated from the rest of a psychical complex of which it has now only become a part. This new mental structure can be regarded as an aberrant form of concept which now has a series of significances and meanings alongside the original reality adapted one. This is what Rapaport (1951) had in mind when he said, "A primitive concept is one which belongs with a drive and all its representations, each one having equivalence with the other . . ." It is this process which leads to the so-called "*pars pro toto*" phenomenon. Illustrations of this clinical manifestation have been recorded (Freeman, Cameron and McGhie, 1958) in which patients referred to one aspect of a doctor and nurse to represent the whole individual—doctors were described as umbrellas and bald-headed eagles; nurses as hems, ruffs and capes.

The primitive or aberrant form of concept is best illustrated by drawing upon a case of chronic hebephrenia. The patient, a young man of 26, had been hospitalized for a period of 6 years. His illness had initially been characterized by primary delusional ideas, affective incongruity and disorder of thought. The passage of time had seen the construction of a complicated delusional system the communication of which was obstructed by the deterioration of his verbal

capacity. The piecing together of this grandiose delusional scheme required more than a year's clinical contact.

In the present context the relevant concept is the word "masterpiece". The patient was forever referring to a masterpiece at the beginning of the period of observation, but it was impossible to understand him on account of his inappropriate use of words and syntactical errors. In time, however, it transpired that he was alluding to a poem which he had written prior to the onset of his illness and here he used the word correctly. Further knowledge about him indicated that this verbal symbol had numerous other meanings which had an equivalence with one another and which were affectively significant. The masterpiece fundamentally represented himself. One day he exclaimed, "How dare you insult the masterpiece!" when he was angry with something the physician had said. It was the keystone of his delusional system. The very first time he had ever referred to the poem as a masterpiece was on giving it to the girl friend who had ultimately rejected him, saying, "I have written this for you, it's a masterpiece".

His delusion centred around the idea that he had voluntarily given up the girl friend (the reverse of what had happened) in order to undertake the restoration and salvation of the hospital. He was in the habit of separating the word "masterpiece" into three parts "mas", "ter" and "piece". The first component had the following significances—it stood for the mass; for master in reference to Christ with whom the patient was identified, and it also represented headmaster. The patient's father was a headmaster and their relationship was a difficult one. The second component "ter" was identified as the Latin word for thrice and belonged with his belief that he had been "thrice martyred". No outstanding meanings were discovered for "piece". In this example the concept "masterpiece" not only had its correct meaning for the patient but at other times it also had a multiplicity of connotations equally significant. Once again, as in the dream, condensation and displacement operate as a single process. Condensation is a result of displacement, but it is by no means its only result. Displacement can be observed as a factor influencing the content and direction of communications, and in this respect it serves the function of lessening the intensity of instinctual cathexes. Chronic schizophrenic patients make free use of this aspect of displacement in a way similar to the normal or psycho-neurotic individual. For example, (Cameron, Freeman and McGhie, 1956) a patient who was afraid to show jealousy whenever the doctor spoke to another patient was in the habit of shouting obscenities out of the window. The content of her utterances concerned her refusal to give a weekly allowance to her mother—described as "a fat old bitch" who spent all her time in bed with a man who was not her husband. This personal historical reference was utilized to represent the thoughts and feelings awakened by the current situation.

Another instance is that of a patient who was too timid to ask for a cigarette, in contrast to the other members of his group. When his attention was drawn to his reticence his answer seemed initially quite nonsensical. He said that he was indifferent to a certain football team—"The way the players are treated is the only thing these chaps are interested in." The reference to Players cigarettes was soon apparent to the observers and his condemnation of his fellows became the subject of discussion.

A last example (Cameron, Freeman and McGhie, 1956) is again concerned with cigarettes. The patient who called cigarettes "Players" thus describing footballers, the members of the group, cigarettes in general and the specific brand named Players, was offered a cigarette. Another very withdrawn and cognitively deteriorated patient began to utter some incoherent phrases the content of

which had something to do with Bishops. The observer suddenly realized that he had offered the first patient a packet of Churchmans cigarettes instead of the usual Players.

II

The intensive observation of individual patients suffering from chronic schizophrenia indicates that the cognitive organization, the characteristics of which have been described above, is not a static state. Just as the cognitive organization of the healthy individual alters in the transition from sleep to wakefulness, so do alterations occur in the cognition of the chronically ill patient. These changes may be due to numerous causes amongst which interpersonal relations and chemotherapy must be given priority.

An excellent opportunity of witnessing the change in cognitive organization was afforded by the patient who had the delusion that he had written a masterpiece. A psychotherapeutic relationship resulted in this man regaining the capacity to use words as symbols of objects and as a means of representing logical relations. He was less inclined to use words for their sound alone independent of their meaning and as concrete objects divorced from their symbolic function. He seemed able to attend and concentrate both on his own thoughts and upon the environment. He no longer failed to discriminate individuals or objects and he was freed from the disturbances which affected his bodily awareness. In spite of all this, however, he was convinced of the reality of his delusional system.

Two interruptions in the relationship led to a dramatic change in his condition. After an initial outburst of anger a complete alteration occurred in the cognitive organization. The advanced level of conceptual thought vanished. The masterpiece was no longer a poem but himself and had all the significances referred to above. From this time on he confused himself with others and failed to discriminate those around him from figures of his past. He was subject to Bleuler's (1924) "peculiar kind of distractability". He was withdrawn and unable to attend or concentrate upon what was said to him. Communication with him was made even more difficult by the way in which he split up words and his preference for using words according to their sound rather than in accordance with their meaning.

The cognitive organization in chronic schizophrenic patients can be thought of as similar to that of the dream state. Identical mental processes appear to be at work—particularly condensations and displacements. The sensory intensity of ideas and images determines entry into consciousness as in the dream and not the selective attention which in normal waking life is necessary for concentration and directed thinking. The decisive difference may lie in the fact that in the dream archaic forms of mental process are employed to keep certain ideas from the dreamer's consciousness and so preserve sleep. In the chronic schizophrenic patient there is as yet no evidence that these archaic processes wholly serve such a defensive function.

In the instance quoted above a beneficial change in the cognitive organization occurred under the influence of an interpersonal relationship. A further change for the worse took place when this relationship proved disappointing. It would appear that in chronic patients of this type there is a constant fluctuation in the level of the cognitive processes and it is this which may lead the very deteriorated patient occasionally to make a meaningful and appropriate remark which is quite out of keeping with his usual thought content.

The Diagnosis of Schizophrenic Reactions

According to the approach outlined in this article the diagnosis of a schizophrenic illness is dependent upon an assessment of the cognitive organization observed in the patient. This concept of the cognitive organization is another way of referring to the patient's ego state—using the term ego in the psychoanalytic sense. The value of utilizing this concept has the virtue of emphasizing the component functions of the ego and their fluid nature. When the diagnosis of schizophrenia is taken up from this standpoint it implies a conception of what the schizophrenic process consists of. According to the hypothesis adopted here the schizophrenic process is the outcome of changes—most frequently initiated by anxiety and guilt arising from mental conflicts—which affect the cognitive organization in such a way that a backward movement (formal regression—Freud) is set in motion leading to the appearance of a special type of cognitive organization which has more in common with the dream state than with that necessary for environmental adaptation.

Freud (1911) described the disaster which overtakes cognitive functioning in the schizophrenias as "an internal catastrophe". He suggested that it was immediately followed by what he described as a phase of restitution. These restitutional tendencies consist of new cognitive techniques which have the purpose of enabling the patient to comprehend the changes which have affected his own person and his understanding of the world. The outcome are the delusions (primary delusions, autochthonous ideas) and the hallucinations.

Clinical studies of the primary phase are generally impeded by the fact that the earliest manifestations of the disease are not reported by the patient and therefore it is not until the second (restitutional) phase that the illness becomes apparent to the outsider. By that time the phenomena arising from both stages are so intertwined that their disentanglement may be an almost impossible task. The progress of the regressive tendencies which led to the "internal catastrophe" may be halted at any time and a progression to a more advanced level initiated. On the other hand this may not occur and the patient is left predominantly in a primitive and pathological state. In spite of this apparently permanent condition a movement towards the differentiation and integration of mental processes is constantly occurring to be followed once again by a relapse into the previous state. An example of this was quoted above.

The diagnosis of the new case will depend upon a close examination of the form and content of the cognitive processes. This examination will also be directed towards estimating the dynamic aspects of these cognitive processes—the degree to which they are influenced by interpersonal relationships and by the immediate environment.

I

An investigation of the current condition of a patient's cognitive organization consists essentially of determining how far the different mental processes which comprise the organization diverge from the level at which they would operate were they engaged on a task necessary for environmental adjustment. Such a task demands the employment of attention, concentration, perceptual processes conceptual thought, judgment, and intact memory schemata. The patient's capacity for sustained attention and concentration is assessed during the clinical interview by estimating the ease or difficulty with which extraneous and internal stimulation is inhibited. When this fails it is not as in the manic patient whose

distractability leads him to include in his associations everything he observes about the physician and his surroundings.

The examiner must be constantly on the look-out for the occasional intrusion into the stream of talk of fragments of overheard phrases and apparently random visual percepts. It is not only the intrusion of extraneous percepts which is of importance but also the patient's capacity to isolate the contents of his thought from the subject matter taken up during the course of the clinical examination. There are patients who report that they are unable to describe the details of, for example, a picture because of the constant pressure of associations from within. Such a patient finds that objects, words, images and ideas lead involuntarily to floods of thoughts which prevent them from continuing with the directed aim of their thinking.

The capacity to attend is closely linked with perceptual processes and here the examiner must be concerned with estimating the patient's capacity for discrimination. In the visual field evidence must be sought indicating, first, a loss of the ability to discriminate one individual from another; second, the condensation of current figures with those of patient's present or past life and third the ability to discriminate the perceptual modalities. Patients have been observed in the acute phase of the illness who could not discriminate between auditory and visual percepts (Chapman, Freeman and McGhie, 1959). Then there are other cases in which figure and ground are fused.

In the sphere of bodily awareness observation must be directed towards finding out whether the patient can at all times discriminate himself as an entity from other individuals. One woman patient believed that she was growing a moustache like her husband and she similarly confused the doctor with him. Another female patient had the idea that her sister's body had entered her, thus leading to a change in the shape of her hips. As in a dream this patient represented her fear of becoming as lascivious as her sister by believing that she was becoming like her physically.

The investigator is dependent upon the verbal utterances of the patient for knowledge of the functional state of the thought processes. This places him at a disadvantage because he can never really pass beyond inferences about the nature of the thought processes themselves. Nevertheless the change in form which the verbal representations take is sufficient to enable him to identify phenomena which may be characteristic of a schizophrenic process. Such phenomena as the inability to sustain a train of thought or unintelligible or illogical associations are not in themselves pathognomonic of any one mental illness. They may be encountered in a number of conditions.

The greatest difficulty arises from the absence of criteria which can be taken as reliable indices of a formal disturbance of thought which may be typified as schizophrenic. It is this lack which has deprived clinical psychiatry of an objective measure whereby different conditions may be differentiated. The signs which are so well represented in textbooks, thought blocking, inertia of thought, loosening of the associations, syntactical errors and bizarre phenomena such as neologisms are most often to be found in the chronic rather than in the acute state. Frequently the diagnosis of a schizophrenic reaction is based upon the disorder which affects the contents of thought rather than upon the form of the thought processes. This is the result of a common yet understandable tendency to fail to distinguish between the form which the thought processes assume as a consequence of the disease and the mental contents by which they represent themselves.

During the clinical interview the examiner must look to see if there is any

evidence of a disorganization of concept formation. This disorganization finds expression in the aberrant or primitive forms of concept to which reference was made above. Attention must equally be given to phenomena which indicate a breakdown in the representational function—where objects and abstract ideas are no longer represented by the appropriate verbal symbols. This failure is apparent in the familiar situation where directed thinking is less dependent upon the meaning of a word than upon its sound and concrete-pictorial significance. Failure of the representational function is also evidenced in the fragmentation of verbal ideas which leads amongst other consequences to the "*pars pro toto*" phenomenon. Associated with this manifestation is the concretization of words and parts of words. This results in the patient talking and using the word as if it were an important possession or plaything.

All these manifestations must be regarded as the result of a process affecting cognitive functions in such a way as to lead to their dedifferentiation and primitivization. The outcome is the appearance of a general tendency towards the condensation or syncretism (Werner) of mental processes which were previously discrete and autonomous. The phenomena which have been described are not usually of a crude and obvious nature as they are in patients who suffer from the organic dementias. They are not constantly present as in patients who are confused with regard to time and place, but only appear sporadically in the course of the patient's communications.

II

The presence of the phenomena detailed above entitles the clinician to infer that a process which can be called schizophrenic is active in the patient. However, it is a matter of experience that signs of this kind are frequently associated with excitement and with pronounced affective reactions. The presence of the latter phenomena frequently leads to difficulty in deciding whether the condition is one of manic depressive psychosis or of schizophrenia. The following is a case in point.

A woman of 38 was admitted to hospital in a state of excitement and restlessness. She could hardly be confined to bed. She kept up a rapid and continuous flow of speech which was difficult to follow. From amongst the welter of associations the following was perceivable—"I am fit enough to eat all the food I get—I am not afraid to die—my husband is getting near middle age—he needs exercise. I am writing too fast for my husband . . ." At this point the speed of associations made it impossible to record the next statements. She was extremely unhappy and wept copiously. She was not self-reproachful nor did she appear to have delusions with a persecutory content or auditory hallucinations. As in the sample of her talk quoted above she occasionally interpolated into her stream of thought some phrase or percept (the observer writing in this instance) which impinged upon her awareness. However she was not distractable by anything or everything around her. She appeared to be wholly preoccupied with her unhappy and frightening thoughts.

During the meeting with the examiner she showed that there were moments when she could not really differentiate herself from him—as in the remark "I am writing too fast . . ." or again "I cannot hear very well" when the latter asked her to repeat an almost inaudible utterance. Most striking was her complaint of a flushed face (in fact her complexion was deathly pale) when the examiner arrived flushed and breathless from hurrying to keep the appointment. Comparison of both faces simultaneously in a mirror did not influence her conviction as to the appearance of her face. There were occasions when she had the greatest

difficulty in discriminating between her husband and herself frequently referring to characteristics of her husband as if they were her own and attributing some of her own traits to her husband. There were periods when she confused some of the older patients in the ward with her mother. All these phenomena occurred against the background of an accurate orientation for time and place. In this patient the clinical manifestations could be regarded as a speeded up version of signs which can be observed in cases of chronic schizophrenia.

It is interesting to contrast this case with another who was also excited and overactive. The patient was a single woman of 24 who was admitted to hospital in a distraught and restless state. When she arrived in hospital she took pains to show everyone how mad she was. She said she was a "looney" and to prove it grimaced, waved her arms about and dashed up and down the ward. She asserted that her admission to the hospital and everything that happened was stage-managed. All her actions were known to the medical superintendent and he was preparing situations for her to encounter. He had nails put in the walls by workmen; he had ordered dirty towels to be left out; these events and a host of others were significant. She believed that a closed television circuit and hidden microphones were the means whereby everything about her was known. None of these ideas had malevolent or persecutory associations. She thought it was a kind of test and she was determined that she would not give in. After some weeks she became depressed and self-reproachful and the delusional ideas apparently vanished.

In this last case there was no indication that the cognitive organization had regressed to a state where condensation became the principal and decisive process governing cognition. It is nevertheless true that a regressive movement had taken place but it was one of a different order. The regression did not affect the cognitive processes and they continued to operate at an advanced level. There was never any question of a failure of perceptual differentiation or of a loss of the capacity for self discrimination. The regression did lead to a pathological egocentrism and to a projected omnipotence. The differentiating factor between these two patients is to be found, therefore, in the state of the cognitive organization. On this basis a schizophrenic process could be excluded in the second case.

The clinical phenomena described thus far do not take into account the place of the paranoid delusions and auditory hallucinations which are so common in cases which are included within the category of the schizophrenias. What is the diagnosis to be in those patients who present with such phenomena and who do not show the cognitive disturbances which are here taken to be pathognomonic of schizophrenia? The answer to this question is still a matter for research. In spite of earlier controversies there is as yet no definite answer to the question whether or not patients of this type all belong to the schizophrenic group as evidenced by an ultimate deterioration of cognitive functioning. It is nevertheless true that the close examination of such patients over a long period (Davie and Freeman, 1961b), or fortuitous information gained from relatives about the onset of the illness, frequently indicates that a disturbance in the cognitive organization has occurred. It is not uncommon to be told that the patient had initially complained of unusual bodily sensations or of a strangeness in his perception of the world. Patients may reveal that they fear a merging with affectively important individuals.

In spite of the difficulties presented by patients with paranoid delusions the approach detailed here enables the clinician to group together a large number of cases which have a schizophrenic process in common irrespective of the affective

accompaniments. It also provides a stimulus for the investigator to find out whether or not cognitive processes remain at a highly differentiated level in the chronic paranoid schizophrenic patient. The fact that profound changes affect cognition in cases which at first sight belong to different diagnostic categories suggests that further study may lead to new methods of clinical classification. Such a classification may be helpful both in estimating prognosis and in evaluating the indications for chemotherapy.

Finally it falls to the author to emphasize the fact that he has purposely grouped together a number of clinical criteria and suggested that their presence is indicative of a schizophrenic process. These criteria have been selected because they may be linked and perhaps equated with phenomena which are encountered in dreams and in chronic schizophrenic states. Such a constellation of criteria, even though arbitrarily chosen to designate a schizophrenic process, may help the investigator to discriminate groups of patients from one another and also distinguish different phases of an illness in the same patient. The value of this formulation will ultimately depend upon the outcome of further clinical studies.

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REFERENCES

BLEULER, E., *Textbook of Psychiatry*, 1944. London: Macmillan.
CAMERON, J. L., FREEMAN, T., and MCGHIE, A., "Clinical Observations on Chronic Schizophrenia", *Psychiatry*, 1956, **19**, 271.
CHAPMAN, J., FREEMAN, T., and MCGHIE, A., "Clinical Research in Schizophrenia—The Psychotherapeutic Approach", *Brit. J. Med. Psychol.*, 1959, **32**, 75.
DAVIE, J. M., and FREEMAN, T., "Disturbances of Perception and Consciousness in Schizophrenic States", *Brit. J. Med. Psychol.*, 1961a, **34**, 33.
Iidem, "The Non-Psychotic Residue in Schizophrenia", *Brit. J. Med. Psychol.*, 1961b, **34**, 117.
FEDERN, P., "Mental Hygiene of the Ego in Schizophrenia". In *Ego Psychology and the Psychoses*, 1953. London: Imago.
FREEMAN, T., CAMERON, J. L., and MCGHIE, A., *Chronic Schizophrenia*. 1958. London: Tavistock,
Idem, "On the Psychopathology of Schizophrenia", *J. Ment. Sci.*, 1960, **106**, 925.
FREUD, S., *The Interpretation of Dreams*, 1900. New Transl. 1954. London: Allen & Unwin.
Idem, "Psycho-Analytical Notes upon an Autobiographical Account of a Case of Paranoia", In *Collected Papers*, 1911, **3**. London: Hogarth Press, 1947.
Idem, "The Unconscious", In *Collected Papers*, **4**, 1947. London: Hogarth Press.
JUNG, G. C., "The Psychology of Dementia Praecox". 1907. In *Collected Works*, 1960, **3**. London: Routledge & Kegan Paul.
MAYER-GROSS, W., SLATER, E., and ROTH, M., *Clinical Psychiatry*, 1954. London: Cassell & Co.
RAPAPORT, D., "Paul Schilder's Contribution to the Theory of the Thought Processes", *Int. J. Psycho-Anol.*, 1951, **32**, 291.
Idem, "Toward a Theory of Thinking". In *Organization and Pathology of Thought*. 1951. New York: Columbia University Press.
SCHILDER, P., "On the Development of Thoughts". In *Organization and Pathology of Thought*. Edited by D. Rapaport, 1951. New York: Columbia University Press,
SILBERER, H., "Report on a Method of Eliciting and Observing Certain Symbolic Hallucination Phenomena". In *Organization and Pathology of Thought*, Edited by D. Rapaport. 1951. New York: Columbia University Press.
STENGEL, E., "A Comparative Study of Psychiatric Classification", *Proc. Roy. Soc., Med.*, 1960, **53**, 123.

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