

cases describe heightened emotionalism bordering on ecstasy. When the condition had evolved towards hebephrenia there was diminished consciousness with unawareness of the automatisms and stereotyped speech and actions. These psychological phenomena are an attempt by the patient to describe and account for the subjective results of the causal cerebral toxæmia, and support previous physiological and experimental work on the ætiology of this condition. STANLEY M. COLEMAN.

*Thought in Schizophrenia.* (*Arch. Neur. and Psychiat.*, vol. xxxi, p. 1063, May, 1934.) *Vigotsky, L. S.*

The author studied the development of thought in children up to the age of puberty and the deterioration of thought in schizophrenia.

He found that the most important development of thought in adolescence was the change from "complex" types of thinking to conceptual types of thinking. [By complex-thinking the author means a simple elementary generalization found in the thought processes of a child, primitive man or a psychotic patient. It may be thought of as group thinking.] He also found that the most important deterioration of thought occurring in schizophrenia was an impairment in the function of the formation of concepts.

This investigation consisted in offering the patients a situation which required the formation of artificial concepts which would not be met with anywhere but in the setting of a laboratory experiment. It was possible by this method to demonstrate the impairment of the formation of concepts, not only when the disturbance of thought was quite apparent, but also in the cases in which no formal disorder of thought could be demonstrated.

The most frequent association structures encountered were (1) collective thinking, in which various objects are grouped together as if they formed a collection composed of different objects united by certain relationships; (2) chain complex thinking; (3) associative complex thinking; (4) pseudo-complex chain-thinking.

There was great difficulty in the formation of new concepts, although those formed previously were used well and quite automatically.

Some writers have compared the thinking of schizophrenics with the thinking of primitive people, with thought in dreams and finally with intellectual processes in lower animals, especially with the process of thought in spiders, as shown by Volkelt. However, the author points out that the selective consciousness of the spider does not so much perceive isolated sensations as perceive total conditioned emotional situations. Between abstract thinking in the form of concepts and thought as it is exhibited by the spider there are a great many developmental steps.

The complex thought observed in schizophrenics is the nearest step to conceptual thought and immediately precedes it genetically. There are millions of years of development between the process of thought of a spider and concept formation.

Early in schizophrenia the meaning of words is changed, but it is difficult to show these changes without using special methods. In schizophrenia, the patient uses in his speech the system of fixed names which he learned in childhood. When the disintegration takes place he reverts to complexes in the place of concepts. Each one of us carries schizophrenia in a latent form, *i. e.* in the mechanisms of thought, which when uncovered become the central figure in the drama of schizophrenic thought. The meanings of words become pathologically altered in schizophrenia, though such alterations do not become apparent for a long time. The experiments showed that there is a better understanding between schizophrenics and normal persons than between one schizophrenic and another. Disturbance in the capacity to understand words used in a metaphorical sense is a frequent characteristic of schizophrenia. The patients cannot see in a situation concretely described meanings other or more abstract than those directly signified by the particular words used in describing it.

Study of the perceptions of a patient with schizophrenia shows that various

common perceptual objects easily lose their common perceptual characteristics. Slight variations in light or in the position of the object bring out in the patient responses similar to those of normal persons to the Rorschach tests. Just as normal persons may see fairies, faces, landscapes, etc., in the ink-blot, the schizophrenic attaches to objects the most extraordinary meanings if there is the slightest change in their customary appearance.

The author does not look on schizophrenia as a psychogenic disorder. Disturbances in concept formation are the immediate result of the disease, not its cause.

G. W. T. H. FLEMING.

*Sleep and its Relationship to Schizophrenia.* (*Journ. Neur. and Psychopath.*, vol. xiv, p. 247, Jan., 1934.) Ewen, J. H.

The writer discusses the Hess theory of sleep, which postulates sleep as a vegetative process by which the autonomic nervous system regulates the activity of the higher cerebral functions. He investigated 10 cases of schizophrenia, and found that their total number of hours of sleep was greater than that of 10 normal persons, that 7 had miosis, and that ergotamine was without action on the duration of sleep or on the size of the pupils. The carotid sinus reflex was present in all 10. He considers that many of the signs and symptoms of schizophrenia are those of over-activity of the parasympathetic.

G. W. T. H. FLEMING.

*Familial Organic Psychosis (Alzheimer's Type).* (*Arch. Neur. and Psychiat.*, vol. xxxi, p. 737, April, 1934.) Lowerberg, K., and Waggoner, R. W.

The authors describe a case of Alzheimer's disease in a man who died at the age of 37. Four other members of the family had died in their fourth decade from somewhat similar conditions, all undoubtedly Alzheimer's disease. The early age and the presence of so marked a heredity have not previously been emphasized in Alzheimer's disease. From a clinical viewpoint cases may be divided into the presenile type which is the commonest, the juvenile type which is rare, and an intermediary type.

G. W. T. H. FLEMING.

*Somnambulism in the Intoxications [Sonambulismo nas intoxicações].* (*Revista da Assoc. Paulista de Med.*, vol. iv, p. 20, Jan., 1934.) Alvim, J. F., and de Alvarenga, T.

The authors concentrate upon the determining factors of somnambulism. They believe that observations indicate the presence of two causes—a neurotic predisposition and poisoning. They describe the conditions which cause neurotic patients to be disturbed in sleep. They also describe a case of hysterical somnambulism in a morphinomaniac. They explain the psycho-physiological mechanism as being subordinated to a toxic sensorial excitement, originating during sleep, with association of ideas producing groups of images manifested by hallucinations of sight and hearing. They consider that there is a type, hitherto undescribed, of somnambulism which is characterized by very lively motor reactions, and which they suggest should be known by the name "oneirobania".

M. HAMBLIN SMITH.

*Spiritistic Alienation [Delirio espirita].* (*La Semana Méd.*, vol. xli, p. 743, March 8, 1934.) Gorriti, F.

Very few text-books describe this condition as a distinct entity; most writers agree in regarding it as a direct result of the abuse of spiritistic practices, looking upon it as similar to "religious mania" in its mode of development. The author, however, considers that the condition should be regarded as a clinical variety of paranoia. A detailed description of a case is given, including specimens of patient's letters and interpretations given by the patient of "spirit photographs".

M. HAMBLIN SMITH.