

stimuli, the condition may be called hysteria. The objection that in hysteria as well as inhibition there is frequently strong excitation is not valid, because in these so-called hysterical dogs there are periodical attacks of positive activity. As an explanation of this, the author states that the cerebral hemispheres form a system continually co-ordinated; but in which points may be isolated. It is possible to make such a point function improperly without affecting the rest of the organization. Such a position may be brought about by attempting to make the dog discriminate between a metronome of 100 per minute and a metronome of 95, the one positive and the other negative. The extremely difficult discrimination involved produces such a disturbance of the auditory analyser, that in severe cases the analyser radiates an inhibition which may depress all conditioned activity for several days.

Passing to hypnosis, the author describes the phenomenon as a dissociation of cortical activity. A hypnotized dog will salivate to a conditioned stimulus, but will not eat offered food until awakened. The explanation of this is that the motor area is inhibited. This inhibition is not "all or nothing." In light hypnosis the dog loses only tongue and masticatory movements, and a progressive loss of food-taking movements is noted as the hypnosis deepens—turning of the head, bending of the neck, movements of the trunk, all progressively disappear. This progressive inhibition is not in accordance with the more obvious formal localization theories.

The author has formed the theory that certain features of schizophrenia are phases similar to the hypnotic phenomena observed in the dog. The cortex, consisting as it does of a synthetic and analytic influence over sub-cortical centres, is, in these cases, to some extent subordinated. This would explain the motility disturbances of the schizophrenic.

In the same way, echolalia, echopraxia and stereotypy may be explained as different degrees of cortical isolation, affecting now one part of the hemisphere and now another.

The author concludes by stating that psychology at the present is divided into association psychologists and the Gestalt school, that the physiology of the cerebral hemispheres permits a *rap-prochement* of these two schools of thought on a basis of fact experimentally established.

W. McC. HARROWES.

*The Physiological and Clinical Analysis of Inhibitory Processes.*  
(*L'Encéphale*, November, 1931.) Agadjanian, K.

This article of considerable length is particularly interesting in view of Pavlov's article in the same issue. It is an approach to the problem of inhibition along lines which are not so definitely Pavlovian, and it is an interesting review of work which has been done in this field.

The author concludes with the statement—which is essentially one of Pavlov's conclusions—that there is no evidence to support

the contention that there are inhibitory centres as such; but rather that the same area may give rise to inhibitory or exciting reactions.

W. MCC. HARROWES.

*The Cerebral Circulation. XIV. The Respiratory Quotient of the Brain and of the Extremities in Man.* (*Arch. of Neur. and Psychiat.*, Oct., 1931.) Lennox, W. G., and Leonhardt, E.

The authors, on 120 occasions, obtained blood from an artery and an internal jugular vein, and calculated the respiratory quotients by comparing the oxygen and carbon dioxide content of the blood. The average respiratory quotients of the portion of the body represented were: of the brain .95, of the arm .86, and of the leg .72. This would appear to indicate that the respiratory quotient of certain ectodermal tissues (brain and skin) is higher than that of muscles. More dextrose disappears from the blood in its passage through the brain than in its passage through the extremities.

G. W. T. H. FLEMING.

*XV. The Effect of Mental Work.* (*Arch. of Neur. and Psychiat.*, Oct., 1931.) Lennox, W. G., and Leonhardt, E.

In 15 instances blood from an internal jugular vein was taken before and during reading and the performance of problems in mental arithmetic. In two-thirds of instances there was an increase in the oxygen content and a decrease in the carbon dioxide content of the blood leaving the brain. The average increase in oxygen content was .9% by volume—an amount well outside the limits of normal variation. The observed increase is presumably due to a dilatation of cerebral vessels.

G. W. T. H. FLEMING.

*XVII. Cerebral Blood-flow in the Vasomotor Response of the Minute Vessels of the Human Brain to Histamine.* (*Arch. of Neur. and Psychiat.*, Oct., 1931.) Weiss, S., and Lennox, W. G.

The authors found that the minute cerebral blood-vessels in man respond to histamine dilatation. The sensitivity of the human cerebral arterioles to histamine is unusually great. The difference in oxygen content between the arterial blood and that in the internal jugular vein decreases during the administration of histamine, indicating an increased blood-flow through the brain. The vasomotor response of the cerebral vessels to histamine indicates that the local action of chemical substances, may play a rôle in the physiological and pathological regulation in man.

G. W. T. H. FLEMING.

*The Choroid Plexus as a Dialysing Membrane. (1) Observations in Experimental Hydrocephalus.* (*Arch. of Neur. and Psychiat.*, September, 1931.) Hoen, T. J.

The author produced artificial hydrocephalus in 18 dogs by blocking the fourth ventricle. As much as 15 c.c. of distilled water—an