Part III.—Epitome of Current Literature.*

1. Anatomy and Physiology.

On the Spinal Nucleus of the Phrenic Nerve [*Zur Kenntnis des spinalen Phrenicus kernes*]. (*Acta Psychiat. et Neur., vol. ix, p.* 253, 1934.) *Kristenson, A.*

The author examined the spinal cord of a patient on whom unilateral avulsion of the phrenic nerve had been performed 18 months previously. The number and position of ganglion cells in the anterior horn of the third and fourth cervical segments showing pigment atrophy was then determined on serial slides. 63% of cells (just over 1100 could be counted on the whole) were situated in the fourth segment. The cells do not form a continuous column, but small groups, most of which are found in the central and medial parts of the anterior column. In the third segment they are more dorsally situated than in the fourth. S. L. LAST.

Experimental Research on the Anatomy of the Central Acoustic System. (*L'Encéphale, vol. xxix, p.* 432, *July–Aug.*, 1934.) *Meyjes, F. E. P.*

The object of this study is twofold. One aim is to determine the existence of some system of cortical representation of hearing, and the other is to examine the possibilities of centrifugal impulses.

The experiments were carried out on rabbits.

The existence of a centrifugal set of fibres representing the whole auditory cortex and running to the deeper parts of the homolateral internal geniculate body was determined.

The anterior part of the I.G.B. is the most important, and the temporal cortex is represented serially from front to rear of the ganglion.

No centrifugal fibres run to the supragenicular nuclei.

The posterior brachium contains only a few such fibres, which cannot be further traced.

There is some temporofugal outflow towards the corpus Luysii. The conclusions drawn are rather theoretical, and consist essentially of the view that the centrifugal fibres of the auditory system constitute part of a primitive visuo-auditory attention pattern, connected up with basal ganglion function.

W. McC. HARROWES.

Newer Results in the Comparative Anatomic Investigation of the Midbrain of Mammals, particularly its Structure in Man. (*Journ. of Nerv. and Ment. Dis., vol. xxxi, p.* 14, *Jan.*, 1935.) *Grünthal, E.*

The hypothalamus shows an anterior and posterior main group of nuclei which always remain unchanged. The wealth of nuclei in the intervening zone of lower mammals decreases in the ascending series to a considerable degree. The few nuclei which can be found with certainty in the whole mammalian series inclusive of man are characterized by their fat content.

There are three different types of hypothalami in the mammalian series. By far the most complicated is seen in the lower groups as far as and including the rodents. Carnivora, ungulates and lower apes show a somewhat comparable

* A number of abstracts in this section are reproduced from *Chemical Abstracts* by kind permission of Prof. Crane, of Ohio University, to whom the Editors wish to express their thanks.

https://doi.org/10.1192/bjp.81.333.460-c Published online by Cambridge University Press

medium development. Anthropoids and man stand alone with an extremely simplified hypothalamus. There is the same progressive enlargement of the pallidum corresponding to the development of the cerebrum, as there is in the nucleus ruber and the nucleus dentatus. The index, length of hypothalamus to length of cerebrum, decreases with the greater degree of development of the mammal. For the *Didelphys* the index is ·3, for rodents about ·2, for carnivora ·16, for the lower apes and also for the gibbon it is ·11 to ·12, for the orang and gorilla it is ·104 to ·109; for the chimpanzee and man only does it lie below ·1 with ·08 to ·09, so that the chimpanzee appears to be the animal closest to man.

The writer would correlate this development of the hypothalamus with the predominatingly instinctive behaviour of the lower mammals. The variable part of the hypothalamus of the chimpanzee resembles almost completely the hypothalamus of man, but hardly at all that of the lower apes. The nucleus supramammillaris, demonstrable among all lower animals, is absent from both chimpanzee and man.

The chimpanzee has the double division of the grey matter surrounding the third ventricle, present in all lower mammals. This is composed of a central part of small cells and a peripheral part of large cells. The nucleus pedamenti lateralis, present in all mammals, is also still present in the chimpanzee. In both of these characteristics it is a lower animal; their absence alone distinguishes the hypothalamus of man from that of the chimpanzee.

The nuclear wealth of the thalamus rises significantly as far as the lower apes, and in them it possesses the richest organization. In *Didelphys* the cerebrum is twice the length of the thalamus, in the apes and man it is about five or six times. In the chimpanzee and in man the number of the thalamic nuclei suddenly falls about one quarter from 49 to 36, by the disappearance above all of a caudal nuclear group and of a large number of small nuclei lying in the midline.

The form of the thalamic structure in the chimpanzee is almost identical with that of man. Man alone lacks a dorsal nucleus, which, although stunted in the chimpanzee, is always present in lower animals. In man the lateral pulvinar nucleus increases extraordinarily in size as contrasted with the chimpanzee. The number of pulvinar nuclei is greater in man as compared with the chimpanzee.

G. W. T. H. Fleming.

---

2. Psychology and Psychopathology.

An Introduction to the Theory of Instincts [*Introduction à la théorie des instincts*]. (*Rev. Fr. de Psychanal., vol. vii, p.* 217, 1934.) *Bonaparte, M.*

A course of eight lectures given at the Psycho-analytical Institute of Paris.

1. *The sexual perversions.*—In order to emphasize the broad Freudian conception of the sexual instinct this lecture is devoted to its deviations. First it is pointed out that in the normal individual certain non-genital activities (oral-eroticism, voyeur-exhibitionism and sado-masochism) occur as preliminaries to the sexual act. Also that as a result of external frustration various deviations from the normal aim may take place.

Secondly, the perversions are classified: deviation from the normal object; anatomical transgressions and deviation from the normal activity. Here also various theories (degeneration, abnormal constitution, infantile sexual trauma, the bisexual and hormonic theories) are reviewed.

Thirdly, in the psychoneuroses, it is explained that according to the Freudian doctrine, symptoms are the disguised expression of repressed and perverse urges, the psycho-neurosis being the obverse of a perversion.

Finally summing up the psycho-analytical view-point, it is stated that perversions are not due exclusively either to an abnormal constitution or to specific traumatic events. Every human being is born with certain perverse predispositions, manifest in infancy and childhood, and which subsequent events may reinforce or enfeeble.