

Part III.—Epitome of Current Literature.*

1. Anatomy and Physiology.

Neuronism or Reticularism? [*¿ Neuronismo o reticularismo?*]. (*Arch. de Neurobiol.*, vol. *xiii*, pp. 218 and 579, 1933.) *Ramón y Cajal, S.*

This profusely illustrated article deals with the objective evidence of the anatomical unity of the nerve-cells. In spite of the strong evidence in favour of the doctrine of the discontinuity of the constituent elements of the grey matter, we occasionally meet with a reappearance of the reticular theory. Owing to the work of Held and his disciples, we are now confronted with a recrudescence of the continuity hypothesis. The reticular theory is attractive to certain minds, because it offers a simple explanation of the transmission of nervous impulses; this simplicity is, however, more apparent than real.

The author reviews the history of neuronism, commencing with the work of His and Forel, who first enunciated the view that the expansions of the nerve-cells terminate freely. He passes to a discussion of the varieties of neuronal synapses. He then considers the axio-somatic connections, and deals with certain objections which have been raised by Golgi, Bielschowsky and Held. Special attention is given to the nerve-endings in the organ of Corti and in the retina. In all his preparations the author has never found a pre-ganglionic fibre, whether typical or atypical, in continuity with the network of the dendrites or of the cellular body. A second part of the paper deals with neurogenetic unity as a proof of the thesis which the author maintains, and considers the theory of auto-regeneration in the restoration of divided nerves.

M. HAMBLIN SMITH.

The Causes and Mechanism of Histolysis of the Nervous System [*Algunas consideraciones sobre las causas y el mecanismo de la histolisis del sistema nervioso*]. (*Arch. de Neurobiol.*, vol. *xiii*, p. 693, 1933.) *Sánchez y Sánchez, D.*

The cause of physiological histolysis, whether in insects or in vertebrates, is that of metamorphosis. It is brought about when the organism exchanges the larval for the final state. The mechanism of histolysis of the nervous system is similar to that of other tissues. The elements destined to disappear, whether finally or in order that they may be replaced by others, perish by means of the action of the surrounding fluids, and their products are absorbed by the phagocytes, eliminated by the ordinary channels, or incorporated into the new formations.

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The State of Potassium in the Central Nervous System and its Dependence upon the State of Excitation. (*Arch. Exper. Path. Pharmacol.*, vol. *clxxv*, pp. 85–91, 1934.) *Pichler, E.*

The potassium in the central nervous system (frog and cow) is present in at least three forms; one is soluble in water-free lipid solvents (ether and ethyl alcohol), one soluble in lipid solvents only on the addition of water, and the third not soluble in lipoids. The relative quantities of the first two forms vary with the state of excitation of the central nervous system. H. E. (Chem. Abstr.).

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