

seem to me of a different character from the remaining trunk with the head. Movements may go on for a while in the former part, and later on may be excited by applied irritations; but in an active annelid the movements of the portion which carries the head are of a quite different character. The creature puts out its slender antennæ to feel its way; it whips it round solid objects; it advances or retracts apparently from the information thus gained; if it turns, the lower segments are curled round, obeying an impulse from some centre which orders, regulates, and inhibits movements. All this makes me agree with Darwin in thinking that worms have sensation and even a feeble degree of intelligence.

We certainly know that mental processes in the higher animals are connected with the brain and some with particular regions of the brain, but the researches of anatomists and physiologists have brought us little farther in explaining the process.

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*Beitrag zur Pathologie der Ganglienzelle* [Contribution to the Pathology of the Ganglionic Cell]. Von Dr. OTTO JULIUSBURGER und Dr. ERNST MEYER.

In this pamphlet, a reprint from the *Monatsschrift für Psychiatrie und Neurologie*, the authors give the result of their examinations of the nervous centres of twenty-eight insane patients who died in the Asylum of Herzberge. These were principally cases of general paralysis and other forms of dementia, senile and alcoholic. The results are given in a tabular form.

The attention of these two pathologists was mainly directed to the great cells of the anterior columns of the spinal axis and of the central convolutions of the brain.

Nissl has described the ganglionic cells as of varied appearance especially characterised by the differences in the coloured substance. One part of the motor cell is readily coloured (chromatophile), whereas another portion remains uncoloured. This uncoloured portion is said by some histologists to be composed of fibrils, which are connected with the axis-cylinders and the dendrites. The chromatophile element is made up of granules. To the groups of granules the authors give the name of *granula*. They found that the ganglionic cells, instead of presenting a polygonal radiating form, were rounded, and that the processes were less apparent or wanting. The larger *granula* had disappeared and only small isolated granules could be described. The alterations in the anterior columns of the spinal cord were of the same character. Drs. Juliusburger and Meyer regard the alterations in the amount of the granular matter in the ganglion cells as the result of diminished nutrition. They are inclined to think that the change is not permanent, and that the cells may recover their normal structure.

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