

THE PHYLOGENY OF THE SOUL

and action of this psychic mechanism have been frequently compared with those of a telegraphic system: the nerves are the wires, the brain the central, and the sense-organs subordinate stations. The motor nerves conduct the commands of the will centrifugally from the nerve-centre to the muscles, by the contraction of which they produce the movements: the sensitive nerves transmit the various sensations centripetally—that is, from the peripheral sense-organs to the brain, and thus render an account of the impressions they receive from the outer world. The ganglionic cells, or “psychic cells,” which compose the central nervous organ, are the most perfect of all organic elements; they not only conduct the commerce between the muscles and the organs of sense, but they also effect the highest performances of the animal soul, the formation of ideas and thoughts, and especially consciousness.

The great progress of anatomy, physiology, histology, and ontogeny has recently added a wealth of interesting discoveries to our knowledge of the mechanism of the soul. If speculative philosophy assimilated only the most important of these significant results of empirical biology, it would have a very different character from that it unfortunately presents. As I have not space for an exhaustive treatment of them here, I will confine myself to a relation of the chief facts.

Each of the higher animal species has a characteristic psychic organ; the central nervous system of each has certain peculiarities of shape, position, and composition. The medusæ, among the radiating cnidaria, have a ring of nervous matter at the border of the fringe, generally provided with four or eight ganglia. The mouth of the five-rayed cnidarion is