

It is proved beyond a doubt, that the cerebro-spinal and the sympathetic centres possess very different degrees of impressive susceptibility. While the cerebro-spinal respond to the least possible influence, the sympathetic are only affected by an intensified impressive force. Hence, in all ordinary vital actions, the sympathetic force remains stationary. The necessary changes in the capillaries for nutrition, secretion, and, in short, for all other functional requisites, are effected by the cerebro-spinal alone.

It is proved by experiments, that an impulse sufficiently potent to impress fully the sympathetic centres, produces a regular, intractable, prolonged and more forcible action, than it does on the cerebro-spinal centres, hence, a general law, which is capable of explaining every vital phenomenon. That a determinate supply of blood is an indispensable requisite to the healthy performance of organic functions, is a self-evident truth, while too much overwhelms, too little enfeebles, and a complete suppression suspends animation, and, if continued, must extinguish life itself. The experiments on the stomach of St. Martin furnish a convincing illustration of the existence, and the operation of a general law of antagonistic capillary innervation. When the stomach was empty the mucous membrane was pale, and no gastric juice secreted, but instantly, on the introduction of food, the mucous membrane became reddened, and the solvent began to flow. On the removal of the ingesta, the membrane became again pale, and the secretion of the gastric fluid ceased. Here the exalting influence of the food on the sentient extremities ramifying on the mucous membrane, is conveyed to their centres, and, instantly elevating the force of the centrifugal capillary expanding fibres, produces a sufficient supply of blood for the elaboration of the gastric fluids, but on the removal of the ingesta, the sentient nerves—no longer feeling the exalting influence of the centres—resume their normal status. So, the instantaneous congestion of the mucous membrane of the uterus, on the impregnation of an ovum, and the contraction of the vessels after the expulsion of the foetus and the placenta, prove further the existence of a general law. Exaltants and depressants are the only agents in the least capable of influencing these dynamic forces, this being self-evident, requires no proof.

The only possible means of ascertaining accurately the characteristic phenomena of each class, is to note carefully the symptoms produced by an agent universally admitted to belong to a certain order. Then, all influences producing like phenomena, must be a species of