

The life of every organic individual is nothing but a connected chain of very complicated material phenomena of motion. These motions must be considered as changes in the position and combination of the molecules, that is, of the smallest particles of animated matter (of atoms united in the most varied ways). The specific, definite tendency of this regular, continuous, and inherent vital motion depends, in every organism, upon the chemical mingling of the albuminous generative matter to which it owes its origin. In man, as in the case of the higher animals which propagate themselves in a sexual manner, the individual vital motion commences at the moment in which the egg-cell is fructified by the spermatic filaments of the seed, in which process both generative substances actually mix; and here the tendency of the vital motion is determined by the specific, or, more accurately, by the individual nature of the sperm as well as of the egg. There can be no doubt as to the purely mechanical, material nature of this process. But here we stand full of wonder and astonishment before the infinite and inconceivable delicacy of this albuminous matter. We are amazed at the undeniable fact that the simple egg-cell of the maternal organism, and a single paternal sperm-thread, transfer the molecular, individual vital motion of the two individuals to the child so accurately, that afterwards the minutest bodily and mental peculiarities of both parents reappear in it.

Here we stand before a mechanical phenomenon of nature of which Virchow, whose genius founded the "cellular pathology," says with full justice, "If the naturalist cared to follow the custom of historians and