

differs from the latter in all the essential metabolic changes in rate or degree only, and if the functional condition or accelerated metabolism is dependent on nerve influence, it seems reasonable to believe that in the resting condition the latter is not withheld.

Certain forms of paralysis (*e.g.*, hysterical) are not followed by atrophy. Why? Because in this form the metabolic nerve influence is still exerted.

The recent investigations on the heart make such views as we are urging clearer still. It is known that section of the vagi leads to degeneration of the cardiac structure. We now know that this nerve contains fibres which have a diverse action on the metabolism of the heart, and that according as the one or the other set is stimulated, so does the electrical condition vary; and everywhere, so far as known, a difference in electrical condition seems to be associated with a difference in metabolism, which may be one of degree only, perhaps, in many instances, still a difference. The facts, as brought to light by experimental stimulation, harmonize with the facts of degeneration by the cardiac tissue on section of the vagi; but this is only clear on the view we are now presenting that the action of the nervous system is not only universal, but that it is *constant*; that function is not an isolated and independent condition of an organ or tissue, but a part of a long series of metabolic changes. It is true that one or more of such changes may be arrested just as all of them may go on at a less rate, thus, actual outpouring of pancreatic secretion is not constant; but secretion is not summed up in discharge merely, and on the other hand it would seem that in some animals the granules of the digestive glands are being renewed while they are being used up in secreting cells. The processes may be simultaneous or successive. Nor do we wish to imply that the nervous system merely holds in check, or, in a very general sense, co-ordinates processes that go on unoriginated by it. We think the facts warrant the view that they are in the highest mammals, either directly (most) or indirectly originated by it; that they would not take place in the absence of this constant nervous influence.

The facts of common observation, as well as the facts of disease, point in the strongest way to such a conclusion.