

medical history. Within this century the celebrated Bichat contended that the passions were located in the organs of organic life. He adopted very much the same arguments which are found in this book, and had a considerable following among members of the medical profession. The language of every day life led to this nomenclature. The poor heart was the seat of all goodness and badness; we had bowels of compassion; we are not supposed to stomach disagreeable duties; the origin of the word melancholy means *black bile*; a passionate man is *choleric*—he is bilious; a hypochondriac has something the matter with the organs under his short ribs, so the word indicates; a splenic man is supposed to have the system in bad order, and any one who possesses sufficient of the *suaviter in modo* to extract spleen from such afflicted, indicates a power of mental surgery of a high order. Numbers of such every-day phrases are used in common speech, but all know they were only employed in a symbolical way. To establish a physiological doctrine analogous to this it was necessary to show that the organs of the trunk were largely supplied with nerves from the great sympathetic ganglia, and that the existence, power, and intensity of the so-called moral nature, depended on this system for its existence. The moral nature may be called a secretion of this material organization.

So many great minds have been led away by this view that it is not to be wondered at their copyists are many. Of course if the great sympathetic is the origin of our moral nature it follows that its existence is a necessary condition of the production of the moral nature. Is it not a fact that several of the lower creation do not possess a sympathetic system at all and others in a very rudimentary state; yet, such do exhibit the greatest anger, the intensest fear, and even love and hate? If this system be the cause of emotions, affections and desires, how comes it no equation can be found between its quantity, tonicity, and the nature which is said to flow from its operations? The reason is not far to seek when it is seen that the nervous system is only a medium of psychical manifestations, and not their exciting cause. The cart is put before the horse. Car-

pen-ter, although one of his school of thinkers is forced to admit in his "Mental Physiology," when writing about the sympathetic in the lower animals. "An analogy has even been drawn between the chain of *prevertebral* ganglia of the sympathetic, and the ventral cord of articulated animals. But this analogy entirely fails when we look at the distribution of the two sets of nerves, and the functions to which they respectively minister. Since it is perfectly clear from such comparison, that it is the spinal cord of vertebrata which really represents the ventral cord of articulata, as a series of locomotive or pedal ganglia." (See page 126 Am. Ed., 1874.) What is true of this series of ganglia is also true of those which are in nervous relation to them, not only is this similarity based on their functions, but also on their physiological structure. Here are countless myriads of creatures with no sympathetic system similar to ours, but being possessed of the moral nature defined by the author. On the other hand the whole scope of physical research goes to show that the direct medium of all the mental phenomena called the unit-man, is the cerebro-spinal system. The sympathetic is a valuable adjunct in giving nerve stimulus to organic life, but it does not solely perform the acts of a moral nature.

No one will deny that the actions of the different organs affect our minds. Although this is the case it does not necessarily follow that these mental operations are functions thereof. As well might the converse be held true, that because the emotions, desires and affections, excite the different organs to activity therefore these organs depend on them for sustenance and growth. Any student of natural philosophy can have suggested to him in the operations of light, heat and magnetism, many bodies in which are inherent certain powers and phenomena without such being functions of these bodies. The fact is, the two classes are inter-dependent on one another, but no reliable evidence goes to show that they are necessarily co-existent and causal of one another.

Space forbids us noticing other points in Dr. Bucke's book from which many must differ. The reader cannot, however, rise from reading