

circumstance which makes physiology an important part of our survey of human knowledge is, that we have here a science which is concerned, indeed, about material combinations, but in which we are led almost beyond the borders of the material world, into the region of sensation and perception, thought and will. Such a contemplation may offer some suggestions which may prepare us for the transition from physical to metaphysical speculations.

In the survey which we must, for such purposes, take of the progress of physiology, it is by no means necessary that we should exhaust the subject, and attempt to give the history of every branch of the knowledge of the phenomena and laws of living creatures. It will be sufficient, if we follow a few of the lines of such researches, which may be considered as examples of the whole. We see that life is accompanied and sustained by many processes, which at first offer themselves to our notice as separate functions, however they may afterwards be found to be connected and identified; such are feeling, digestion, respiration, the action of the heart and pulse, generation, perception, voluntary motion. The analysis of any one of these functions may be pursued separately. And since in this, as in all genuine sciences, our knowledge becomes real and scientific, only in so far as it is verified in particular facts, and thus established in general propositions, such an original separation of the subjects of research is requisite to a true representation of the growth of real knowledge. The loose hypotheses and systems, concerning the connexion of different vital faculties and the general nature of living things, which have often been promulgated, must be excluded from this part of our plan. We do not deny all value and merit to such speculations; but they cannot be admitted in the earlier stages of the history of physiology, treated of as an inductive science. If the doctrine so propounded have a solid and permanent truth, they will again come before us when we have travelled through the range of more limited truths, and are prepared to ascend with security and certainty into the higher region of general physiological principles. If they cannot be arrived at by such a road, they are then, however plausible and pleasing, no portion of that real and progressive science with which alone our history is concerned.

We proceed, therefore, to trace the establishment of some of the more limited but certain doctrines of physiology.