

OUR LIFE

with a reduction of the movements of the animal body to purely physical laws, and Sylvius endeavored, about the same time, to give a purely chemical explanation of the phenomena of digestion and respiration; the former founded the *iatromechanical*, the latter the *iatrochemical*, school of medicine. However, these rational tendencies towards a natural, mechanical explanation of the phenomena of life did not attain to a universal acceptance and application; in the course of the eighteenth century they fell entirely away before the advance of teleological vitalism. The final disproof of the latter and a return to mechanism only became possible with the happy growth of the new science of comparative physiology in the forties of the present century.

Our knowledge of the vital functions, like our knowledge of the structure of the human body, was originally obtained, for the most part, not by direct observation of the human organism itself, but by a study of the more closely related animals among the vertebrates, especially the mammals. In this sense the very earliest beginning of human anatomy and physiology was "comparative." But the distinct science of "comparative physiology," which embraces the whole sphere of life phenomena, from the lowest animal up to man, is a triumph of the nineteenth century. Its famous creator was Johannes Müller, of Berlin (born, the son of a shoemaker, at Coblenz, in 1801). For fully twenty-five years—from 1833 to 1858—this most versatile and most comprehensive biologist of our age evinced an activity at the Berlin University, as professor and investigator, which is only comparable with the associated work of Haller and Cuvier. Nearly every one of the great biologists who have taught and worked in Germany for the last sixty years was, directly or in-