

was the first to realize the dignity of the physiologist's calling, maintaining that the art of medicine must rest on a science of physiology, and that physiology without a secure anatomical groundwork was as a house built upon the sand. It was with these convictions that he so assiduously dissected and experimented on monkeys and swine, the human body being then a forbidden subject. He showed, simply enough, that the arteries contain, not air, but blood; and he recognized what remained obscure to Aristotle—the meaning of the brain and nervous system. “He was also the first to point out that the nerves of sensation are distinct from those of motion, and are connected with different parts of the nervous system” (Rutherford). He followed Aristotle in striving after a connected system of physiological interpretation, and explained the functions of the body as due to the co-operation of the animal spirit (*πνεῦμα ψυχικόν*) in the brain and nerves, the vital spirit (*πνεῦμα ζωτικόν*) in the heart and absorbed from the air by the lungs, and the natural spirit (*πνεῦμα φυσικόν*) in the liver, &c. He elaborated a pathological doctrine of nine temperaments, which has hardly been improved upon since. His system has only historical interest now, but we must remember that it dominated both theory and practice until the sixteenth century.

With the revival of learning came a re-awakening of physiological interest, but for many years no real advance was made. A minimum of observation was combined with a plethora of speculation. Most characteristic, perhaps, was the tendency to invent explanations of function in terms of animal and vital spirits.

Rising by force of genius high above his contemporaries was Philippus Aureolus Theophrastus Paracelsus Bombast, of Hohenheim (1493(?)–1541), charlatan and thinker. He seems to have been a fascinating personality—a traveller, who, as he said, “turned over the leaves of Europe, Asia, and Africa, and in so doing suffered much hardship”; a scholar, who learned alike from sage and gipsy, classic and wizard; a democrat, who said, “Get thee behind me, Greek, Latin, and

Galen.

Mediæval  
Physiology.