

CONSCIOUSNESS

guished from inorganic substances) have souls: the three ideas — life, soul, and consciousness — are then taken to be coextensive. Another modification of this view holds that, though these fundamental phenomena of organic life are inseparably connected, yet consciousness is only a part of the activity of the soul, and of the vital activity. Fechner, in particular, has endeavored to prove that the plant has a "soul," in the same sense as an animal is said to have one; and many credit the vegetal soul with a consciousness similar to that of the animal soul. In truth, the remarkable stimulated movements of the leaves of the sensitive plants (the *mimosa*, *drosera*, and *dionæa*), the automatic movements of other plants (the clover and wood-sorrel, and especially the *hedysarum*), the movements of the "sleeping plants" (particularly the *papilionacea*), etc., are strikingly similar to the movements of the lower animal forms: whoever ascribes consciousness to the latter cannot refuse it to such vegetal forms.

V. *Cellular theory of consciousness.*—It is a vital property of every cell. The application of the cellular theory to every branch of biology involved its extension to psychology. Just as we take the living cell to be the "elementary organism" in anatomy and physiology, and derive the whole system of the multicellular animal or plant from it, so, with equal right, we may consider the "cell-soul" to be the psychological unit, and the complex psychic activity of the higher organism to be the result of the combination of the psychic activity of the cells which compose it. I gave the outlines of this *cellular psychology* in my *General Morphology* in 1866, and entered more fully into the subject in my paper on "Cell-Souls and Soul-Cells." I was led to a deeper study of this "elementary psychology" by my