

powers, and the same when dead and inert, like ordinary matter. It is easy to kill an amœba: what has been taken from it? Chemistry cannot tell; but, once dead, no power of man can make that drop of jelly live again.

Haeckel, one of the latest and ablest of the German apostles of Evolution, says: "The soul's activity in the Protista," among which he includes the amœba, "manifests itself in their irritability, that is, in the movements and other changes which take place in consequence of mechanical, electrical and chemical irritation of their contractile protoplasm. In the Protista, as in all other organisms, the activities of the soul are traceable to molecular motions in the protoplasm."

Let us see if he has really given an explanation of "the soul's activities," by which we understand him to mean the manifestations of life. In the first sentence quoted, he simply describes living protoplasm as irritable and contractile. The terms irritability, irritation, convey to us no new idea, since they are only names for the unknown cause of some of the known phenomena of life. Contractility, as applied to muscular fibre, in reference to which the term is ordinarily used, means a regular shortening of the length of the fibre, with a corresponding increase in thickness. In this sense, in the opinion of Dr. Beale, perhaps the best microscopist in the world, the word does not apply, since the various diameters are constantly changing without the slightest regularity. This will be admitted by any one who has watched an amœba. In the second sentence he calmly reduces life force, and therefore life itself, to something "traceable to molecular motions." If the word molecular is employed in its usual sense in chemistry, he begs the question, for we know absolutely nothing of molecular motions either in simple elements or compounds, and how can we trace anything to them? To a less advanced person, this definition or explanation of life looks like the use of a cloud of learned words to conceal one's ignorance.

His account of the origin of protoplasm and of life is an excellent proof that even an eminent man of science is as