

## THE RIDDLE OF THE UNIVERSE

lar *ancestral forms*, which were represented in the oldest series of man's ancestors by a number of different protozoa.

We learn the character of the psychic activity of these unicellular organisms from the comparative physiology of the protists of to-day. Close observation and careful experiment have opened out to us in this respect, in the second half of the nineteenth century, a new world of the most interesting phenomena. The best description of them was given by Max Verworn in his thoughtful work, based on original research, *Psycho-physiological Studies of the Protists*. The work includes also the few earlier observations of the "psychic life of the protist." Verworn came to the firm conclusion that the psychic processes are unconscious in all the protists, that the phenomena of sensation and movement coincide with the molecular vital processes in their protoplasm, and that their ultimate causes are to be sought in the properties of the protoplasmic molecules (the *plastidules*). "Hence the psychic phenomena of the protists form a bridge that connects the chemical processes of the inorganic world with the psychic life of the highest animals; they represent the germ of the highest psychic phenomena of the metazoa and of man."

The careful observations and many experiments of Verworn, together with those of Wilhelm Engelmann, Wilhelm Preyer, Richard Hertwig, and other more recent students of the protists, afford conclusive evidence for my "theory of the cell-soul" (1866). On the strength of several years of study of different kinds of protists, especially rhizopods and infusoria, I published a theory thirty-three years ago to the effect that every living cell has psychic properties, and that the