

THE RIDDLE OF THE UNIVERSE

are the primary and secondary. Primary instincts are the common lower impulses which are unconscious and inherent in the psychoplasm from the commencement of organic life; especially the impulses to self-preservation (by defence and maintenance) and to the preservation of the species (by generation and the care of the young). Both these fundamental instincts of organic life, *hunger* and *love*, sprang up originally in perfect unconsciousness, without any co-operation of the intellect or reason. It is otherwise with the *secondary* instincts. These were due originally to an intelligent adaptation, to rational thought and resolution, and to purposive conscious action. Gradually, however, they became so automatic that this "other nature" acted unconsciously, and, even through the action of heredity, seemed to be "innate" in subsequent generations. The consciousness and deliberation which originally accompanied these particular instincts of the higher animals and man have died away in the course of the life of the plastidules (as in "abridged heredity"). The unconscious purposive actions of the higher animals (for instance, their mechanical instincts) thus come to appear in the light of innate impulses. We have to explain in the same way the origin of the "*à priori* ideas" of man; they were originally formed empirically by his predecessors.*

In the superficial psychological treatises which ignore the mental activity of animals and attribute to man only a "true soul," we find him credited also with the exclusive possession of reason and consciousness. This is another trivial error (still to be found in many a manual, nevertheless) which the comparative psy-

* *Vide Natural History of Creation*, E. Haeckel.