

THE PHYLOGENY OF THE SOUL

IV. Invertebrate ancestors with a simple vertical brain: the vermalia.

V. Vertebrates without skull or brain, with a simple spinal cord: the acrania.

VI. Animals with skull and brain (of five vesicles): the craniota.

VII. Mammals with predominant development of the cortex of the brain: the placentals.

VIII. The higher anthropoid apes and man, with organs of thought (in the cerebrum): the anthropomorpha.

Among these eight stages in the development of the human soul we may further distinguish more or less clearly a number of subordinate stages. Naturally, however, in reconstructing them we have to fall back on the same defective evidence of empirical psychology which the comparative anatomy and physiology of the actual fauna affords us. As the craniote animals of the sixth stage—and these are true fishes—are already found fossilized in the Silurian system, we are forced to assume that the five preceding series of ancestors (which were incapable of fossilization) were evolved in an earlier, pre-Silurian age.

I. *The cell-soul (or cytopsyche)*: first stage of phyletic psychogenesis.—The earliest ancestors of man and all other animals were unicellular protozoa. . This fundamental hypothesis of rational phylogeny is based, in virtue of the phylogenetic law, on the familiar embryological fact that every man, like every other metazoon (*i.e.*, every multicellular organism with tissues), begins his personal existence as a simple cell, the stem-cell (*cytula*), or the impregnated egg-cell (see p. 63). As this cell has a "soul" from the commencement, so had also the corresponding unicellu-