Does ontogeny recapitulate phylogeny

<u>Sociology</u>



The belief is that ancestral characters of organisms will more likely than not, be preserved in an organism's development. The idea is better visualized in the following manner;

" both chick and human embryos go through a stage where they have slits and arches in their necks that are identical to the gill slits and gill arches of fish. This observation supports the idea that chicks and humans share a common ancestor with fish. Thus, developmental characters, along with other lines of evidence, can be used for constructing phylogenies." (" Ontology and Phylogeny", n. d.)

On the other hand, Phylogeny is defined by scientists as " the history of the evolution of a species or group, especially in reference to lines of descent and relationships among broad groups of organisms. " (" phylogeny", n. d.) Phylogeny is basically reliant on the theory that plants or animals all descend from common ancestors. However, due to the lack of scientific basis for this theory to be proven as true, since most of the ancestors of life on the planet are already extinct and the fossils on the record are few and far between, this theory is based solely on direct evidence.

Having now defined what Ontogeny and Phylogeny are in relation to the evolution of man, we may now coherently discuss as to whether Ontogeny recapitulates Phylogeny. Most scientists do not agree with the ORP theory and reject the thought based upon the embryological evidence for evolution. Basically, if we look at a man and a chick, we will see that both fetuses have gills and slits in the neck. Therefore, both species stemmed from a fish-like existence. However, the animal and the man never turned into fishes before turning into men and chicks. In the case of man, we evolved past that into the current biped form that we have today. The ORP Theory is based upon doctored drawings of the German scientist Ernst Haeckel, a professor of Embryology at the University of Jena in Germany, that tried to sell scientists on the idea that; " if Evolution is true, maybe one of the races have evolved further than the rest " (2011). This belief was effectively debunked by the scientific community because, if we were to go back to the chick theory; " in the course of a chick's development, it would go through the following stages: a single-celled organism, a multi-celled invertebrate ancestor, a fish, a lizard-like reptile, an ancestral bird, and then finally, a baby chick." (Ontogeny and Phylogeny", n. d.) Such an amazing transformation obviously never happened, the organism's development never took it through its ancestral stages of development. Therefore, Ontogeny does not recapitulate Phylogeny.