

Evidence of evolution

[Science](#), [Anthropology](#)



Emergence of Early Primates Emergence of Early Primates Primate refers to the first kind of animal group that includes the Prosimians, anthropoids, hominoids, and hominids. According to O’Neil (2003), primates are among the most recent animals to exist compared to other species. The first primate came into existence billion years after existence of life and only 60 million years ago. Their existence was as a result of change in climatic conditions. This is because the period primates came into existence was also marked by changing environmental condition of pro-longed cold and dry period. These environmental changes brought about natural selection where the surviving animals had to adapt to the surrounding. As a result led an arboreal way of life characterized good eye precision, a hand grip and padded feet with claws to enable climbing.

The first primates were Prosimians whose niche was during the Paleocene Epoch. Prosimians faced global extinction of plants and animals that lacked adaptations to survive in the changing environment and had to adapt to complete the versatile ecological niche (Butzer, 1977). The early Prosimians were relatively small in size, they had a grasping hand and feet that were adapted to climbing trees and efficiently manipulated objects. At this stage they were developing stereoscopic vision. However, the Prosimians became extinct by the end of the Eocene Epoch and gave way to the anthropoids that existed during the Oligocene.

The Oligocene was characterized by regional climate shifts that definitely influenced the direction of evolution (O’Neil, 2003). The climate at the time created a favorable environment for growth of fruits and seed plants that the anthropoids feed on. However, they still lived on trees. Due their

environment and feeding habits, they had fewer teeth, larger brain capacity and a more defined stereoscopic vision as compared to the Prosimians.

The Miocene Epoch was the next Epoch after the Oligocene. It was characterized by the movement of tectonic plates that created mountain chains. This changed the weather patterns, whereas the progressive global cooling and drying was still in force. Eventually, polar ice caps reduced the amount of water in the oceans lowering the sea levels. A land reconnection occurred between Africa and Asia, providing a migration route for primates and other animals (Williams, 2001). Tropical forests in South Asia and East Africa replaced the dry grasslands and woodlands providing a strategic environment for the survival of primates.

The hominoids evolved during this period as primate transformed from bipedalism to quadrupedalism. According to Butzer (1977), hominids emerged as a result of mosaic environments and stone tool making culture. Both environmental and cultural changes accelerated evolution of hominoids to hominids. This stage of evolution occurred during the Ice Age. During this period, there were high fluctuations in the climate which were followed by glaciations in higher altitudes.

In conclusion, evolution of primates occurred through natural selection.

Charles Darwin's theory of natural selection is evident in the evolution of primates. This is because there was variation in each generation of primates and different survival probability of individuals as a result of changes in the climate and the general environment. As much as genes determine behavioral development, modification of environmental conditions may directly lead to behavioral modification.

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