

Investigating the Evolution of Living Things

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ABSTRACT

Today, the study of the origin of life is one of the active fields in scientific research, and cooperation between different disciplines of science has greatly contributed to increasing our knowledge about the formation of life.

According to scientists, the age of the earth is estimated at (4.6) billion years, but the signs of life are approximately (3.8) billion years ago. Thus, life had hundreds of millions of years to begin with the formation of CO_2 , H_2O , C, H_2 , N_2 after the formation of the Earth's initial atmosphere. There are several theories before the organ molecules formed in the early earth. Organic matter may have been produced on the surface of the earth and formed by the earth at the site of hot water pores. The primary cells were probably heterotrophic. Aerobic organisms have appeared in the atmosphere after increasing oxygen, eukaryotic organisms have evolved from prokaryotes; Organisms diversified during the Paleozoic, with dinosaurs and other reptiles dominating during the Mesozoic (about 250 million years ago); The Sinusoid age is the age of mammals, but it does not exist to prove any of the above ideas that can satisfy all scientists and philosophers. Evolutionary sources, the origin of the evolutionary history of life, scientific studies on the origin of life, the evolution of living beings and intelligent human beings old and present, and clear cultural evolution.

Keyword: Evolution, Human, Living thing, Life, Transformism, Microevolution, Embryo, Fossil.

I. INTRODUCTION

The origin and evolutionary history of primitive life on earth, the evolution of the emergence of the ancient intelligent man, and the present man and the position of man in particular in terms of cultural evolution and evolution are among the most important philosophical and scientific issues that have always been hotly debated for centuries. Is. These debates are still going on today.

Usually these discussions start with the question, how did life begin? Biologists, however, generally hypothesize that life evolved from inanimate matter. It is accepted, but it is not clear exactly how this process, called chemical evolution, came to life. Chemical evolution probably involves several stages. Common models suggest that small organ molecules form spontaneously and relatively larger masses are formed over time. These molecules may have accumulated instead of being broken. Later large organ

molecules such as proteins and nucleic acids were formed. The macromolecules interacted with each other to form more complex structures until they were able to metabolize, proliferate, and form the first cells. Photosynthesis, aerobic respiration, and eukaryotic cell structure are major advances in life history. According to existing fossils, unicellular prokaryotes first came to life and were followed by unicellular eukaryotes. The first multicellular eukaryotes, which were mollusks, appeared in the ocean about 630 million years ago. Oystercatchers and many other non-marine poor later appeared. Following the invertebrates, vertebrates appeared. First, the first fish came into being and diversified. Some of them evolved into Zoomistin. These were the first vertebrates that had limbs that could move on Earth, and zoomestin expanded and diversified. About 300 million years ago, zoomestin evolved into reptiles. Reptiles later evolved into mammals and birds in two separate ways. Plants also evolved and diversified in parallel with animals.

II. EVOLUTION OF LIVING THINGS

The word evolution in Persian has been chosen as the equivalent of two terms (Evolution) and Transformism. The meaning of these two terms in the tradition of biological literature, one of which is the belief in the derivation of species from each other and the other is the term theory of fixation of species Fixism or belief in the fixation of species.

Evolution is derived from the word Evolutie meaning development, and the word was first used in embryological activity in the 18th century by the Swedish naturalist S. Bonar (1762).

Transformism

It is a theory that believes in the evolution of living things. In general, the term uses the term conceptual evolution in the human mind, and it is the historical emergence of living beings, derivation of species from each other and sometimes the belief in the existence of some kind of progress and development, the ascending course while deriving some types.

Evolution in the member world (living world) is considered to be the starting point for the emergence of living beings, simple souls, which, as a result of continuous gradual change based on accident, mutation changes from simple to complex, excellent and diverse, and finally the great evolutionary lineage of life. According to proponents of this theory, there are

millions of living species that make up the current life on Earth. All are branches and twigs that grow from a single tree (Genital tree) or a few limited seedlings [10].

Biological Evolution

Based on biological evolution, there is a process of self-renewal and production of large molecules and living organisms that struggle in the interaction of Ontogenesis and Macromolecule of living organisms. Biological evolution varies in terms of process outcomes. Biological interaction is an irreversible flow. The results of biological evolution are always the adaptation of living evolved systems to environmental conditions, which leads to the widespread and successful spread of biological systems. In the 19th century, a very important event in the history of the development of evolutionary thought took place, the formulation of the theory of evolution by the English scientist Charles Darwin (1842-1953).

The theory of evolution is generally divided into two periods. Pre-Darwinian period and Darwinian period (Darwinism) Pre-Darwinian theories relied more on theories about the emergence of types and the impact of ecological factors. While Darwin's theory of evolution is the discovery of evolutionary factors and its main causes are hereditary variability, survival conflict, natural selection and artificial selection.

Microevolution: The first and basic stages of evolution are minor changes or microevolution, and this process takes place within the species, creating separate groups. Therefore, small evolution is the initial and basic stages of the evolutionary process.

As we know, the basic structure of evolution is vital accumulation (Population). It has also become clear that vital aggregation usually has many different mutations that prepare the inherited material (genes and chromosomes) for the process of evolution. Therefore, mutations can be called the basic ingredients of evolution, which arise over many generations. This condition can cause many changes in a certain direction in the composition or ecological structure of the vital accumulation and these changes of genotype and phenotype are the main and basic conditions of the process of biological evolution.

Macroevolution: Small (small) changes that occur in organisms within different population groups lead to the production of new species, which is in fact the basic stage of large evolutionary changes, and thus new generations of living organisms are found. It produces new systematic categories of goods, families, etc., and this process is called macroevolution.

Macroevolution in the broadest sense and in general is the evolution of life on Earth, which also includes the origin of their origin and has been done historically for a long time. Large evolution takes place in populations, as opposed to small interactions within the species, it is called superspecific evolution, and there is no contradiction in principle between any action, because within the big evolution lies the practice of

small evolution. Thus the basis of great evolution is the units or types of evolution, hence the evolution of life on earth is created by the practices of great evolution [5].

III. THE ORIGIN AND EVOLUTION OF PRIMITIVE LIFE ON EARTH

Before discussing the origin and evolution of life on earth, the question inevitably arises: what is life itself? It should be noted that this simple question is inherently very complex. Some scholars define life as follows: Life is a complex physical and chemical interaction that depends on protein molecules and is subject to certain internal and external conditions such as heat, humidity, pressure, etc. Specific manifestations in the form of independence, Shows abrasion and deformation.

Here we have tried to define life, but again this definition is complex and it would be better to know the meaning of life first of all, to understand the characteristics of living objects.

From the beginning, man has subdivided the objects around him according to his needs and generally divided them into two categories, namely immobile immobile objects and moving living objects, and that is why movement is one of the properties to this day. Most of the living body is known. Because after death, the living body stops moving, but this property is not very valid and the reason is that a considerable number of living bodies are motionless, such as sponges and generally all plants. Excellent. On the other hand, there are non-living objects that can move, such as machines and moving machines.

Another property of living organisms is that they can breathe after they die, but the general definition of life does not apply to this property either, because on the one hand there are organisms that do not need any O₂, such as germs and parasitic worms. On the other hand, there are non-living systems that actively absorb O₂ and release CO₂, such as fires, petrol engines, etc., in which the sympathetic interactions of the organic matter are accompanied by the absorption of O₂ and the excretion of CO₂.

Another property of living objects is the ability to multiply, which is more important with this property, but still cannot be relied on much. Because, on the one hand, there are some creatures that cannot produce offspring, such as bee workers, mules, and so on. Contemporary technology, on the other hand, has created tools that make machines like themselves [4].

IV. ORIGIN AND EVOLUTIONARY HISTORY OF LIFE

Biologists have generally accepted the hypothesis that life evolved from non-living matter. But; it is not clear exactly how this process, called chemical

evolution, took place. Chemical evolution probably involves several stages. Common models suggest that small organ molecules form spontaneously and accumulate over time. These molecules may have accumulated instead of being broken, the two factors that break down organ molecules today (the free oxygen of living organisms) did not exist in early Korea.

Large organ macromolecules, such as proteins and nucleic acids, arose from the accumulation of smaller molecules. The reaction of the macromolecules with each other formed more complex structures until they could eventually metabolize and proliferate. Natural selection also selected these aggregated molecules with cell-like structures. Their offspring eventually became

the first real cells, spanning billions of years after the first cells formed, creating the biodiversity that characterizes the planets today. Photosynthesis, aerobic respiration, and eukaryotic cell structure are major advances that have been made throughout life [2].

The position of man in particular in terms of evolution

Standing upright, bipedal posture: Orang-utam and Gibbon usually move from tree to tree in a hanging or swinging manner. The weight of an adult gorilla is heavy for this mode of movement, so the gorilla generally lives on the ground. This animal, with its lazy manner, puts only the sides of its sole on the ground. On the contrary, man has become completely upright and bipedal. Pay attention to the following figure.

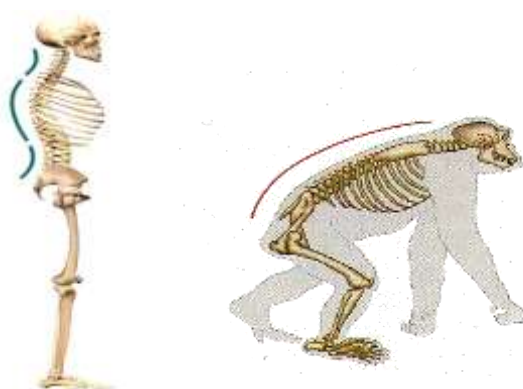


Figure. 1: Spine of a normal chimpanzee bent once in a human (double arc S)

The big toe is only mounted on the foot and does not move like the big toe. The root bones of the human foot and middle foot are dome-shaped [1]. This building is not seen in any of the "humanoid monkeys", but it should be noted that when a child is just starting to walk, he puts his foot on the ground in a way that makes one think of another Primate who, while the behavior of the soles of the feet throws them to the ground. An infant can also use its large paw to grip. The large paws of humanoid apes are open from the first day to the last, enabling them to grip objects firmly with their feet. The pelvis is wider and extends forward [3].

The human pelvis carries the internal organs of the body like a bowl. The human spine does not have the shape of a bridge like the backbone of cattle or it is not at all straight like a hangman. The human spine bends twice in an S-shape and carries the human chest and head like a spring. The fulcrum of humanoid apes is located in the back and is located in the lower part of the center of gravity in humans, and in this regard, to strengthen the human head does not require very strong neck muscles, the width of the human chest is longer than its length. In this respect, the center of gravity of the body, unlike other primates that are like a chest cage. It is located in the direction of the long axis of the body to the back. This position is superior to maintain the balance of the "right-minded".

Acquiring the right endurance of the human body is very young in terms of the history of evolution, and they also have defects behind them. Standing upright, for example, causes high pressure on the lower parts of the body. The result is abdominal distention. Damage to the cartilage between the vertebrae of the spine, the flat soles of the feet, and the formation of contractile arteries as a result of blood clots in the leaves of the feet [9].

Teeth arching and chewing utensils

To draw a variety of phoneme sounds, the alignment of the upper teeth of a parabolic arch with the curvature of the palate and the excellent mobility of the tongue is of great value. The fusion of the middle bone with the maxilla before human birth enables the smooth development of the arch of the teeth, thereby enhancing the ability to speak. The arches of human teeth chewing less subtraction is an omnivorous creature and is smaller compared to the arches of the teeth of "humanoid monkeys". The incisors are very slightly different from the incisors.

The human teeth are closed, in humanoid monkeys there is a gap between the incisors and the incisors, and their mill teeth are arranged in parallel [6].

Hair cover: Unlike monkeys, human skins have been destroyed except for a small remnant. Preserving the remnants of skin hair can have a selective advantage.

Extending the stages of youth and aging

A human baby is born earlier than a "humanoid monkey". With longer preparation, the human baby's skull will not be able to exit the birth canal, which is bounded by the pelvic bones. For several months after birth, the human baby, like the chicks of nesting animals, is a completely helpless creature, but unlike the highly evolved organs, it is sensitive. This allows a very strong development of the nose immediately after birth in direct connection with the accumulation of emotional perceptions of its environment. While the monkey chicks cling to their mother by their own strength. Human infants lack this talent. Infants in infancy are in dire need of nurture. Learns how to use hands by walking and speaking with remarkable success. Human life expectancy, in excess of what is necessary to promote generational survival, causes the intersection of generations. This in turn is invaluable in passing on traditions to future generations [8].

As a result of the long and intense upbringing of infants, the division of labor in the family arose. Collaboration, mutual help, learning to teach in a group in order to use the environment and improve the facilities of life, etc. are very valuable for human beings. First of all, human educational talent for the rest of his life is one of the extremely valuable foundations of cultural evolution.

Akbar nose and skull shape

The formation of a catchy hand has caused the growing of Akbar's nose, which is very similar to humans in gorillas and shimans.

Akbar's nose shows a very intense evolution of the outer surface. As a result of the enlargement of Akbar's nose, the skull of the nose is curved outwards and is so wide towards the face (human face) that it has caused a long forehead. The skull is more bent and the human pose is pulled back. The bulge above the eyebrows is gone, the nose and groin are clearly protruding.

Language

Understanding is also widespread among animals through the expression of meaningful and proportionate sounds. A language to be learned and a language in which disturbed mental thoughts become sounds. It is present in animals in its very primitive form. Language is one of the most important foundations of social relations. Man is able to present and communicate his experiences through linguistic symbols (words and sentences). Anatomical features alone are not a prerequisite for the ability to speak, but the creation of a special center for language in the defense of Akbar is also extremely valuable [7].

V. REASON (UNDERSTANDING)

Humans differ greatly in their understanding of the "humanoid apes" with whom they are physically related. Humans are not only less dependent on their

innate behaviors than they are, but are even able to act against them. Slow (eg, hunger strike) the ability to understand the relationship between cause and effect is a particularly human characteristic. Because of this, humans are able to use tools and instruments in a wide range of shapes and forms, unlike chimpanzees, and also make their own tools and instruments.

Compared to other living beings, human beings are able to think about themselves and their surroundings, by having an idea of the future of programming, presenting their personal experiences to others and preserving it by writing and using their own means. Guide your destiny to a very wide scale. This ability allows a person to change their lifestyle very quickly. Human thinking gives man a special and parental characteristic of "human". As a result of quantitative and continuous changes in the process of promotion to human beings, a special qualitative leap has been created [2].

VI. CONCLUSION

In this scientific article more about the origin and evolution of life, the non-existence of life in ancient times, non-scientific ideas about the origin of life, scientific studies on the origin of life, the origin and evolutionary history of life, evolutionary theories although still It has not been confirmed by all scientists. Today it is discussed and as far as possible the theories of scientists of recent periods and centuries are explained.

One of the most important and controversial issues in the natural sciences has always been the nature of life and its development.

What is suggested in this chapter is that no one should use baseless prejudice and prejudice regarding human nature, creation and evolution of living beings, but rather deal with Islamic reasons and logic and modern knowledge wisely.

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