Evolution Essay, Research Paper

Evolution

People have always wondered how life originated and how so many different kinds of plants and animals arose. Myths and Theories of a supernatural creation of life developed among many peoples. The Bible, for example, tells of God’s creation of humans and other higher animals over several days. Many people also believed that insects, worms, and other lower creatures spontaneously generated from mud and decay. Long after these stories became rooted in tradition, scientists began to question them. In my report, I will discuss these different theories & myths.

The definition of evolution is included below, directly from Webster s Dictionary.

evo+lu+tionPronunciation: “e-va-’l -shun Function: nounEtymology: Latin evolution-, evolutio unrolling, from evolvereDate: 16221 : one of a set of prescribed movements2 a : a process of change in a certain direction. b : the action or an instance of forming and giving something off. c (1) : a process of continuous change from a lower, simpler, or worse to a higher, more complex, or better state : growth 2) : a process of gradual and relatively peaceful social, political, and economic advance d : something evolved3 : the process of working out or developing4 a : the historical development of a biological group (as a race or species) : phylogeny b : a theory that the various types of animals and plants have their origin in other preexisting types and that the distinguishable differences are due to modifications in successive generations5 : the extraction of a mathematical root6 : a process in which the whole universe is a progression of interrelated phenomena

As you can see, I have underlined and bolded what I believe the different definitions of evolution may be, as discussed in this report.

There are many theories and myths about evolution. For example, here is a quote from Chief Weneinock of Yakima God created the Indian country and it was as if he spread out a big blanket. He put the Indians on it . . . and that was the time the river started to run. Then god created fish in the river and put deer in the mountains . . . then the creator gave us Indian life; we walked and as soon as we saw the game and the fish we knew they were made for us. We grew and multiplied as people.

One of the first theories of evolution, other than myths, is the theory of spontaneous evolution. Spontaneous evolution was the theory that organisms spontaneously become. The Myths & theories such as this did not satisfy the curiosity of some people, and some people do believe in theories such as the myth and theory above and other theories & myths involving god-creation.

The first serious attack on the idea of spontaneous generation of life was made in 1668 by Francesco Redi, an Italian physician, who proved that maggots did not arise spontaneously in decaying matter, as commonly believed, but from eggs deposited there by flies

Louis Pasteur, a French chemist, came up with the first proof that microorganisms, like maggots, do not spontaneously evolve, but are from preexisting life. Louis Pasteur was devoted to solving practical problems of various industries. He also came up with the pasteurization of milk.

Around 1809, Jean Lamarck, a French scientist, came up with the first real theory of evolution. Lamarck s theory was that as the characteristics an organism develops during its lifetime in response to its environment are passed on to its offspring; for instance if you become very muscular during your lifetime, your offspring will become very muscular. Today, we know that this theory is partially wrong, because certain characteristics are gained on your own in your lifetime, again, like muscularity. Lamarck s theory was also partially right, because certain characteristics, which come out during your lifetime, are in your genes and may be passed onto your offspring. An example is cancer, which is usually passed along with genes (environmental factors aside).

Charles Darwin was a British scientist. He disagreed with Lamarck’s theory, and in 1859, 30 years after Lamarck s death, he published his thoughts in a book. His book was called The Origin of Species. He laid down the foundation of modern evolutionary theory with his concept of the development of life through the slow working process of natural evolution. Darwin s theory is that as plants or animals spread to new areas, or as the conditions change different variations would be favored in different places. This would mean these variations would spread through the populations of the plants or animals. Over time this would finally lead to a development of new species. This theory was explained in his book, which describes his studies on the Galapagos Islands in the Pacific Ocean. He noticed that the species on the islands varied slightly from each island and were adapted to local conditions. Most scientists believe Darwin s theory to this day, but back when the idea was new, many people and scientists did not accept this theory Biologists argued that Darwin could not prove his hypothesis. Others criticized his ideas of variation and that he could not prove how these variations came about or how they were passed on. This part of his theory was not proven until the birth of modern genetics in the early 20th century. In fact, many scientists had doubts about Darwin s theory for 50-80 years. The most publicized attacks came from religious opponents who believed it was impossible for humans to be on the same level as animals. This is called The Theory of Evolution.

Alfred R. Wallace, an English naturalist, also came out with a theory that was almost identical to Darwin s theory. Darwin s theory was much more developed and better known. For example Darwin pointed out that farmers would take certain qualities from two different plants and mix them together and it would produce the desired plant. He believed this happened in nature also, and he called it the survival of the fittest or natural selection.

Other information:

Lawyers Clarence Darrow, left, and William Jennings Bryan opposed one another in the famous Scopes trial in 1925. Darrow defended John Scopes, a Tennessee high-school teacher on trial because he taught the Darwinian theory of evolution, while Bryan aided in the prosecution. This is an example of the opposition to the Darwinian theory of evolution to the religious theories of evolution.

The picture to the left shows what the horse evolved from. As you can see, the horse evolved from the 10-20 Eohippus. Since then, the dog-like structure has evolved into today s horse. The bone structure of the hoofs have evolved and the general shape of the body has changed dramatically over time.

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