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Biological and genetics evolution in plants, humans, and animals

Biological evolution refers to the progressive change in the inherited characteristics in plants and animals. It is a natural process of development of living nature, accompanied by a change in a genetic code of populations, formation of adaptations, speciation and extinction of species, transformation of ecosystems and the biosphere as a whole. The process arises from the inheritance of genes from ancestors. This results either in the creation of better genes or in the extinction of weaker genes, a process known as “survival of the fittest”. The aim of this paper is to give a brief review of the peculiarities of the evolution process.

According to Darwin and Gillian (55), organisms successively inherit better survival traits from their parents, thus, next generations of organisms are better adapted to the environment. Such organisms are always different from their ancestors owing to the accumulation of good genes in their DNA in the process of evolution. On the other hand, as the environment changes, organisms that inherit weak traits die over time owing to their inability to adapt to the environment. Such organisms die before maturity and do not communicate their weak genes to their offspring. Extinction of weak organisms leads to the extinction of animals with weak or underdeveloped skills.

Virus, just as any other living organism, evolves as it better its ability to adapt to environment, thus survives. Virology is a discipline that studies the nature of viruses. Numerous virologists have observed systematic development in viruses that evolve rapidly. RNA viruses, for example, mutate rapidly and adapt to their hosts' bodies. Mutation is among the basic forms of evolution that make viruses able to resist drugs thus survive for long in the bodies of their hosts. The generation time of most RNA viruses continues to shorten. This implies that such viruses are able to change their RNA structures rapidly thereby enabling the viruses to survive. Apparently, such viruses lack definite DNAs and RNAs, they constantly change their structures, a feature that complicates treatment of viral diseases even in humans (Domingo, Colin, and John 71).

The ability to change their DNA and RNA structures is an effective adaptive feature that enhances the survival of viruses. Viruses are some of the oldest organisms on earth. They have survived for long owing to their ability to change their structure thus enhancing their survival through natural selection. The concept of natural selection as explained earlier refers to the ability of an organism to accumulate desirable traits capable of enhancing life in a particular ecosystem. Strong organisms with better adaptive features, on the other hand, grow to maturity and mate with others thus taking part in reproduction.

In conclusion, viruses have adapted successively to their environments, thus, they are almost invulnerable to any hazards. Ability to change RNA and DNA structures are perfect survival techniques the organisms have acquired over a long period. Evolution has therefore perfected viruses making them better adapted for survival in their changing ecosystems. Most viruses, such as HIV, have no treatment owing to their unique RNA structures. Such an appropriate adaptive trait the organisms acquired through evolution as they accumulated genes

that make them more suitable to exist in their environments. The same applies to numerous other organisms that evolve acquiring better adaptive traits.

Works cited

Darwin, Charles, and Gillian Beer. *The Origin of Species*. Oxford: Oxford University Press, 1996. Internet resource.

Domingo, Esteban, Colin R. Parrish, and John J. Holland. *Origin and Evolution of Viruses*. Amsterdam: Elsevier Academic Press, 2008. Internet resource.