

Four forces of evolution

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



Four Forces of Evolution Evolution is a process that is associated with change in gene allele with time. Four primary mechanisms successfully explain the evolution process: natural selection, mutation, gene drift, and gene flow. All these forces contributed significantly to the evolution process. In connection with this, the paper aims at expounding the role played by each force to the evolution process.

The world is believed to have contained a small population before the start of the evolution process. As time passed, accidental change in gene allele of the species in the small population took place leading to the small population splitting into more new ones. This genetic drift resulted in biological variation between species that had to survive. It was as a result of this drift that isolation of species took place; some species moved to new areas where they interbreed allowing the introduction of new alleles to the population. The introduction of new alleles from the nearby populations resulted in new genetic variation in the populations. Survival of the new populations however required the populations to adapt to their environment. This was made possible by the natural selection force; the force assisted the new formed populations to make beneficial adjustments to their environment, and as a result enhanced their survival. In tandem with this assertion, natural selection shaped genetic variation at the population level favoring some individuals over others. The changes in the genetic structure of the population then resulted in speciation (Haviland, McBride, Prins and Walrath 44). Due to variation in environmental conditions, the genetic codes of the formed species started changing resulting in new variations. The random mutation of the species' genetic codes led to genetic variation that resulted

in the emergence of new populations. In connection with this, it is evident “mutation was the ultimate source of evolutionary change, responsible for the constant introduction of new genetic variations” (Haviland, McBride, Prins and Walrath 42).

In conclusion, evolution process was enhanced by four forces; natural selection, mutation, gene drift, and gene flow. However, the complexity of human beings is as a result of the mutation process that takes place constantly.

Work Cited

Haviland, William, McBride Bunny, Prins Harald and Walrath Dana. The Essence of Anthropology. New York: Cengage Learning, 2012.