

age of by breeders of various domestic animals and works changes almost incredible. Is such a selection going on in Nature? Darwin would say, yes. Every being, which during its existence produces one or more of its kind, must during some period undergo destruction; otherwise on the theory of geometrical progression its numbers would very quickly become too great for the means of support. Hence, as more individuals are produced than can possibly survive, there is a struggle for existence, one individual with another, and with its surroundings and conditions, that is with its environment.

That animal survives which is best fitted for the conditions under which it is forced to live.

Variations take place in domestic animals which man by methodical selection uses to obtain new races. It cannot be thought improbable that variations also take place in Nature and under natural conditions. Among many of these one would probably occur which would give the individual possessing it an advantage over his rivals, and in the struggle for existence he would have the best chance of surviving. This peculiarity would be transmitted to his progeny and would give them a better chance for continued existence. Life is a constant struggle with environment and those whose characteristics fit them best to bear the exigencies of that environment will be the most likely to survive. This is the theory of natural selection or of the survival of the fittest. It does not state that natural selection tends to produce variability but only to the preservation of the variations which arise and are beneficial to the being under the existing conditions of life.

If, as before stated, men can, by taking advantage of any variability which appears in domestic animals, produce such great changes, should not the process of natural selection accomplish infinitely greater results? Man, by methodical selection, can act only upon external and visible characters; Nature chooses only those characters which are useful to the being in question. She can act on every internal organ and upon even the most minute shade of constitutional difference, and in a struggle for existence so intense the most minute advantage—the most minute difference may turn the balance in favor of the individual possessing it, again, man can act at most upon a few generations while Nature acts for ages.

What part does this natural selection play in the production of new forms? Take for example one species of animal in a confined area. All animals possessing an advantage, or varying in the right direction will tend to be preserved. If this area be large, its several districts will certainly present different conditions of life, the surrounding conditions, the environment, in the different areas will differ, and only those suited to different regions will survive. Thus we will have several