

Epicurean Isonomy In The Context Of Statements By Balbus As To Gradations In Life In Book 2 of "On the Nature of the Gods"

Post by "Joshua" of August 7, 2025 at 10:22 PM

It depends on precisely what we mean by 'gradations'. Here is a passage from *God is not Great* by Christopher Hitchens, discussing the gradations evident in modern biology which demonstrate the pathway by which light-sensitive cells developed over millions of generations into the complex eyes found in modern humans;

Quote

Evolution also posits that modern organisms should show a variety of structures from simple to complex, reflecting an evolutionary history rather than an instantaneous creation. The human eye, for example, is the result of a long and complex pathway that goes back hundreds of millions of years. Initially a simple eyespot with a handful of light-sensitive cells that provided information to the organism about an important source of the light; it developed into a recessed eyespot, where a small surface indentation filled with light-sensitive cells provided additional data on the direction of light; then into a deep recession eyespot, where additional cells at greater depth provide more accurate information about the environment; then into a pinhole camera eye that is able to focus an image on the back of a deeply-recessed layer of light-sensitive cells; then into a pinhole lens eye that is able to focus the image; then into a complex eye found in such modern mammals as humans.

All the intermediate stages of this process have been located in other creatures, and sophisticated computer models have been developed which have tested the theory and shown that it actually "works."

However, the popular conception of evolutionary biology--that organisms get successively bigger, stronger, faster, and smarter in the course of generations--is descriptively accurate in some cases but wholly wrong when considered as prescription of nature. Mutation and selection may give rise to faster organisms when those faster organisms are better fit for their environment than their slower counterparts, but when the metabolic expense of speed does not make a species more fit to survive in its environment than members of that species who do not 'pay' that metabolic cost will be better fit than those that do. This is why populations of antibiotic-resistant bacteria lose their resistance when that antibiotic is no longer used; individuals with the genetic resistance lose the benefit but still suffer the cost, and those individuals are out-competed by individuals without resistant genes.

Quote

Was it predictable from the existence of monkeys that humans would arise?

There was always some chance that humans could arise--we know this because we exist--but no, I do not think we can safely say that this outcome was ever likely. It *seems* likely to us because it happened, and we're living the outcome. This is the very definition of [Hindsight bias](#). If an asteroid hadn't cratered into the Yucatán Peninsula at the K-Pg boundary, and a new language-using species had arisen from the non-avian dinosaurs that are now extinct, it might seem to *that* species that their existence was predictable. We have excellent reasons to suspect otherwise.