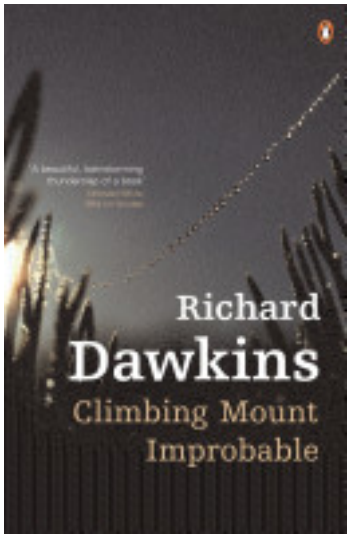

Climbing Mount Improbable, Richard Dawkins, Penguin Books Limited, 2006, 0141936320, 9780141936321, 320 pages. How could such an intricate object as the human eye - so complex and so precise - have come about by chance? In this masterful piece of popular science, Richard Dawkins builds a powerful and carefully reasoned argument for evolutionary adapatation as the force behind all life on earth. The metaphor of 'Mount Improbable' represents the combination of perfection and improbability that we find in the seemingly 'designed' complexity of living things. And through it all runs the thread of DNA, the molecule of life, responsible for its own destiny on an unending pilgrimage through time. Evocative illustrations accompany Dawkins' eloquent descriptions of astonishing adaptations in the living world..

Built by Animals: The natural history of animal architecture , Mike Hansell, Oct 18, 2007, Science, 280 pages. From termite mounds that in relative terms are three times as tall as a skyscraper, to the elaborate nests of social birds and the deadly traps of spiders, the constructions of ....

The Alabama Insert , Richard Dawkins, 2013, Science, 52 pages. In this volume, excerpted from Charles Darwin: A Celebration of His Life and Legacy (NewSouth Books, 2013), public educator, author, and evolutionary biologist Richard Dawkins ....

Sociobiology The New Synthesis, Edward O. Wilson, 2000, Science, 697 pages. View a collection of videos on Professor Wilson entitled "On the Relation of Science and the Humanities" Harvard University Press is proud to announce the re-release of the ....

Il piÐ“â„– grande spettacolo della Terra , Richard Dawkins, Oct 7, 2010, Science, 408 pages. Nel 1859 L'origine delle specie di Charles Darwin scosse il mondo dalle fondamenta. Darwin sapeva benissimo che la sua teoria dell'evoluzione avrebbe provocato un terremoto, ma ....

The Selfish Gene : 30th Anniversary edition 30th Anniversary edition, Richard Dawkins, Mar 16, 2006, Mathematics, 384 pages. The million copy international bestseller, critically acclaimed and translated into over 25 languages. This 30th anniversary edition includes a new introduction from the author ....

The Private Life of Spiders , P. D. Hillyard, 2007, Spiders, 160 pages. THE PRIVATE LIFE OF SPIDERS explores a fascinating world of competition and a fight for survival. Join arachnid expert Paul Hillyard on a tour of some of the most remarkable ....

The Dynamic Genome: A Darwinian Approach , Antonio Fontdevila, Jun 2, 2011, Science, 232 pages. Our ever-increasing knowledge of whole genome sequences is unveiling a variety of structures and mechanisms that impinge on current evolutionary theory. The origin of species ....

EvoluciÐ“Ñ–n El mayor espectÐ“ÐŽculo sobre la Tierra, Richard Dawkins, Jul 19, 2010, Science, . Cuando se habla de la Ð’Â«TeorÐ“Â-a de la EvoluciÐ“Ñ–nÐ’Â» Ð’Ñ—a quÐ“Â© nos estamos

refiriendo exactamente? Ð’Ñ—Se trata de una hipÐ“Ñ–tesis acerca de la presencia del ser humano sobre la tierra? Ð’Ñ—Se ....

The Young Oxford Encyclopedia of Science , Richard Dawkins, Jonathan Allday, 2002, , 448 pages. The leading science encyclopedia explaining the achievements and progress of science, now fully revised and updated. Major updates include: - The advent of SARS - Extended ....

The Ancestor's Tale A Pilgrimage to the Dawn of Evolution, Richard Dawkins, 2005, Science, 673 pages. A renowned biologist provides a sweeping chronicle of more than four billion years of life on Earth, shedding new light on evolutionary theory and history, sexual selection ....

In Six Days Why Fifty 50 Scientists Choose to Believe in Creation, John F. Ashton, Jan 1, 2001, Religion, 384 pages. So the question was posed, "Would any educated, self-respecting scientist with a PhD advocate a literal interpretation of the six days of creation?" It's hard enough to find a ....

Wonders of Nature How Animals and Plants Live and Behave in Relation to Their Natural Surroundings, , 1945, Natural history, 320 pages. How animals and plants live and behave in relation to their natural surroundings..

A Devil's Chaplain , Richard Dawkins, Oct 27, 2004, Science, 272 pages. The first collection of essays from renowned scientist and best-selling author Richard Dawkins is an enthusiastic declaration, a testament to the power of rigorous scientific ....

Built by Animals The Natural History of Animal Architecture, Michael Henry Hansell, Oct 18, 2007, Architecture, 268 pages. From vast termite mounds that outstrip our own skyscrapers, to elaborate birds nests, delicate shells, and deadly spiders' traps, the constructions of the animal world can ....

Can a Darwinian be a Christian? The Relationship Between Science and Religion, Michael Ruse, Sep 6, 2004, Religion, 242 pages. This book, first published in 2000, asks whether someone who accepts Darwinism subscribe simultaneously to the basic tenets of Christianity?.

The human eye is so complex and works so precisely that surely, one might believe, its current shape and function must be the product of design. How could such an intricate object have come about by chance? Tackling this subject—in writing that the New York Times called "a masterpiece"—Richard Dawkins builds a carefully reasoned and lovingly illustrated argument for evolutionary adaptation as the mechanism for life on earth.

The metaphor of Mount Improbable represents the combination of perfection and improbability that is epitomized in the seemingly "designed" complexity of living things. Dawkins skillfully guides the reader on a breathtaking journey through the mountain's passes and up its many peaks to demonstrate that following the improbable path to perfection takes time. Evocative illustrations accompany Dawkins's eloquent descriptions of extraordinary adaptations such as the teeming populations of figs, the intricate silken world of spiders, and the evolution of wings on the bodies of flightless animals. And through it all runs the thread of DNA, the molecule of life, responsible for its own destiny on an unending pilgrimage through time.

How do species evolve? Richard Dawkins, one of the world's most eminent zoologists, likens the process to scaling a huge, Himalaya-size peak, the Mount Improbable of his title. An alpinist does not leap from sea level to the summit; neither does a species utterly change forms overnight, but instead follows a course of "slow, cumulative, one-step-at-a-time, non-random survival of random variants"--a course that Charles Darwin, Dawkins's great hero, called natural selection. Illustrating his arguments with case studies from the natural world, such as the evolution of the eye and the lung, and the coevolution of certain kinds of figs and wasps, Dawkins provides a vigorous, entertaining defense of key Darwinian ideas.

While an enzyme molecule or an eye might seem supremely improbable in their complexity, they are

not accidental, nor need we assume that they are the designed handiwork of a Creator, asserts Oxford biologist Dawkins (The Selfish Gene). This foremost neo-Darwinian exponent explains the dazzling array of living things as the result of natural selection?the slow, cumulative, one-step-at-a-time, non-random survival of chance variants. Both a frontal assault on creationism and an enthralling tour of the natural world, this beautifully illustrated study is based on a set of BBC lectures, imparting a tone at once conversational and magisterial. Dawkins explores how ordered complexity arose by discussing spiders' web-building techniques, the gradual evolution of elephant trunks and of wings (birds, he concludes, evolved from two-legged dinosaurs, not from tree gliders) and the symbiotic relationship between the 900 species of figs and their sole genetic companions, the miniature wasps that pollinate specific fig species. Using "computer biomorphs" (simulated creatures "bred" from a common ancestor), Dawkins demonstrates how varieties of the same plant or animal species can vary in shape because of differences in just a few genes. Author tour.

What Dawkins does is take a whole slew of animal characteristics that have led even natural selection's most strident supporters (including Darwin himself) to throw up their hands and say, "This is too complex - it cannot have evolved naturally." Examples include eyes, lungs, spiderwebs (yes, animal behavior counts), and wings.

In other words, Dawkins shows that it's entirely plausible for, e.g., an eye to evolve because each stage of development enhances the fitness of the organism, yet each individual change (not the creation of the entire eye) is caused by such a small genetic change that it could have occurred randomly.

Along the way, Dawkins explains evolutionary theory in simple, understandable language, showing not only its incredible power, but also its limitations: because natural selection is a series of tiny steps, in which each change must improve the animal's survival fitness, organisms can get "stuck" on a path of improvement that ultimately is not as beneficial to them as another path would have been. The book is a powerful tool for understanding how natural selection works.

Though in a broad sense this book covers the same ground as the also-excellent _The Blind Watchmaker_, this one is less stridently argumentative in tone and consequently somewhat more accesible to the non-biologist. It also introduces a new metaphor for the process of evolution towards complexity, the titular Mount Improbable, which I find far superior to either the Blind Watchmaker (derived from and therefore permenantly bound to old Creationist arguments) or the author's much-beloved computer programs. The museum of hypothetical shells is another great addition to the annals of thought-experiment.

Another aspect of this book's greatness is the way in which Mr. Dawkin's love for biology, both in the sense of the study of living things and in the sense of the living things themselves, shows on nearly every page. Where in The Blind Watchmaker he often seemed angry (albeit rightfully so), here he is equally often simply enraptured by the sheer beauty of evolution and the products thereof. It's easy to see that this guy is a true naturalist, and his enthusiasm is infectious.

Rambling: Dawkins has one point to make. Evolution is NOT the random process creationists will have you think it is, but rather it is a process based on random mutation and NON random selection. Very well. We get it. We got that in The Selfish Gene, we got that in The Blind Watchmaker. We got that in chapter 1. We understand that's what you want to say. The entire book is dedicated to explaining this point. HOWEVER, you don't have to repeat it every 4 paragraphs. Say it once. Say it loud. Say it proud. Stop repeating it 300 times. Dawkins also has a way of sliding into rather odd and unbecoming metaphors, as if trying to explain evolution to an imbecile - the entire book and its title point to such a metaphor (the Improbable Mountain and its peaks).

Dawkins' knowledge is encyclopedic. Seriously. He goes on and shows examples from every corner of the wildlife kingdom and he does his explaining with style, elegance, and lucidity. He slides from mussels to spiders to bees to humans with ease and grace, explaining how evolution worked its way to solve problems in each and every case and pointing out the similarities between the solutions and how graceful they are. That's why the rating for this book has gone from a 3 to 4 in my eyes - the

range and sheer amount of species that he uses in order to demonstrate his claims.

If only for reading about interesting problems and interesting evolutionary solutions for them - I think you should try the book. If you've already read The Selfish Gene/The Blind Watchmaker and you're looking for more interesting philosophy about evolution, look elsewhere - if you're looking for more fun examples - this is a good book to go for. Read more ›

Many people find it difficult to understand how complex structures like eyes and wings evolved through random evolution. Dawkins does a thorough job here laying out just how evolution works. He makes it clear that evolution is not random--it is the accumulation of gradual changes, over centuries and millenia. Mutations are random; evolution is not. Dawkins is very good at explaining how each gradual change to a complex structure like an eye or a wing would have been useful enough to the animal possessing it to have contributed to its survival and producing more babies than its rivals. Those babies then become the starting point for the next round of evolution. The key word here is CUMULATIVE.

The main metaphorical treatment is of a geographical landscape, upon which evolution can only ascend in a gradual way, not being able to climb cliffs (this is known as an adaptive landscape). In the book Dawkins gives ideas about a seemingly complex mechanism coming about from many gradual steps that were previously unseen.

Mount Improbable is Dawkins' metaphor for wrapping one's head around the extreme intricacies of evolution: look at the sheer peak and it seems insurmountable, but go around the other side and start up the gradual slope and you can reach the top. The book spends some time exploring mathematical developments, such as spider webs and shells, and other things that are improbable based on their complexity, such as eyes and figs (yes, figs, in a haltingly intricate final chapter). Dawkins goes to leng...more Mount Improbable is Dawkins' metaphor for wrapping one's head around the extreme intricacies of evolution: look at the sheer peak and it seems insurmountable, but go around the other side and start up the gradual slope and you can reach the top. The book spends some time exploring mathematical developments, such as spider webs and shells, and other things that are improbable based on their complexity, such as eyes and figs (yes, figs, in a haltingly intricate final chapter). Dawkins goes to lengths to show that a lot of things in nature can be explained mathematically, and that the ultimate robots already exist in nature in the form of living things, due to the existence of DNA. Although at times slightly tedious, Dawkins excels in explaining evolutionary science to the layperson so as to affirm that what some see as impossible is at most improbable, and ultimately attainable through evolution.(less)

In this book, Dawkins attempts to explain how it is possible that evolution of such amazing instruments as eyes can happen through nothing more than natural selection. He explains in part through the use of his and others' computer simulations. I really *get* that natural selection with random mutation...more I highly recommend you read any Dawkins book on evolution, if you want the best coherent explanation of the processes of natural selection.

I find it striking that Dawkins can casually assert that the mitochondria organelle found in most eukaryotic cells was once an independent bacterial life form, and not address the implications on evolution!! Read Acquiring Genomes, by Margulis and Sagan for many more examples of possible evolutionary factors beyond natural selection.

But despite Dawkinsâ€™ hero-worship of Darwin, Solomon had written, â€˜there is nothing new under the sunâ€™ . The philosopher and priest Dr G.H. Duggan, in reviewing a Dawkins book, pointed out that a form of Darwinism had been proposed by the ancient Greek philosopher Empedocles. The underlying philosophy of evolution is that man can determine truth apart from God, and this philosophy started in Eden.

Creationists cannot afford to ignore Dawkins. Thus a recent book responding to anti-creationists, while excellent overall in my opinion, was justly criticized for overlooking Dawkins and making a small mistake as a result. Dawkins has a widespread influence well out of proportion to the actual

scientific merit of his books. This is partly due to manâ€™s rejection of God, and Dawkins tickles their ears the way they want. However, his message is anything but inspiringâ€”we are robots programmed by DNA to replicate more copies of that DNA.

The bookâ€™s title is a parable: many structures in living organisms are so complex that there is a vanishingly small probability of producing them in a single stepâ€”this corresponds to leaping the high Mt Improbable in a single step. But, says Dawkins, this mountain has a gently upward-sloping terrain on the other side, where a climber can ascend gradually, constantly progressing to the top. This corresponds to the neo-Darwinian mechanism of evolutionâ€”mutations + natural selection. Mutations produce gradual improvements, and natural selection means that organisms which have them are slightly more likely to leave offspring. So a later generation of organisms is slightly more complex, or higher up the slope of Mt Improbable. This process is repeated until the dizzy peaks are scaled by this ever-so-gradual process.(less)

"The major argument against evolution is that there is no way such large changes between species can evolve. Fish scales cannot change into human skin. Gills cannot change into lungs. The problem with this argument is that they look at a gigantic leap and insist that such a large change cannot happen. Dawkins argues that they are at the bottom of a mountain and looking up to a very high cliff above and declare that there is no way to climb it. What they do not see is that on the other side of th...more "The major argument against evolution is that there is no way such large changes between species can evolve. Fish scales cannot change into human skin. Gills cannot change into lungs. The problem with this argument is that they look at a gigantic leap and insist that such a large change cannot happen. Dawkins argues that they are at the bottom of a mountain and looking up to a very high cliff above and declare that there is no way to climb it. What they do not see is that on the other side of the mountain is a very gentle slope slowly climbing upward in very easy gradual steps. The only catch is that it takes 100s of millions of years to climb. Fortunately, the earth has had several billion years to evolve life in this manner.

3 - The concave wall of light-sensitive cells becomes even more concave so that only a pin hole of light enters an almost circular wall of cells. This creates a pupil or a small hole for light to enter the primitive eye. When light entering an eye is limited to a pinhole then a fuzzy image appears on the light-sensitive cells. This is how a cardboard pinhole camera functions. Several examples of animals that have this primitive eye are given as well.

4 - A lens is needed in the next step to increase the focus of the image. Dawkins demonstrated how a cardboard pinhole camera with a plastic bag filled with water as a lens increased the focus of an image. Any blob of transparent cells would work as a primitive lens. In organisms the blob could have evolved for another purpose but would soon be used for a lens.

At this point, you have a primitive functioning eye. Continued baby steps of evolution would improve the shape of the lens and control the size of the pupil. Computer models show that the time needed to evolve an eye are almost instantaneous compared to the several billions of years that life has been on the planet. Eyes have evolved independently several dozen times in different species."(less)

This book being reviewed is titled, "Climbing Mount Improbable". The author is Richard Dawkins, who just happens to be one of my favorite authors. I read this book years ago, when I developed an interest in learning more about evolution. I liked the book so much, that I bought copies for my four adult children. To my surprise, none of them completely read it. About a month ago, I decided to reread it and perhaps discover why my kids didn't take to it like I did. I also wanted to see if it appear...more This book being reviewed is titled, "Climbing Mount Improbable". The author is Richard Dawkins, who just happens to be one of my favorite authors. I read this book years ago, when I developed an interest in learning more about evolution. I liked the book so much, that I bought copies for my four adult children. To my surprise, none of them completely read it. About a month ago, I decided to reread it and perhaps discover why my kids didn't take to it like I did. I also wanted to see if it appeared differently to me now that I had acquired considerably more knowledge about evolution via reading books by various authors.

Richard Dawkins has at least two things going for him: one is that he is extremely knowledgeable about zoology and about evolution. The second thing is that he has the gift of explaining complex scientific concepts to laymen who are not scientists. I have always admired people who could do this. The late Isaac Asimov was another with this talent. Richard Feynman was another.

Richard Dawkins can make a world of life forms awe-inspiring and fascinating. I remembered that as a child I was fascinated by the other creatures in the world with me. I think most children love animals and are fascinated by them. Somehow we lose that curiosity as we grow older. Perhaps it is the challenge of scratching out an existence or perhaps our school system destroys this natural curiosity due to tedious assignments. One becomes a child again, when reading Dawkins books.