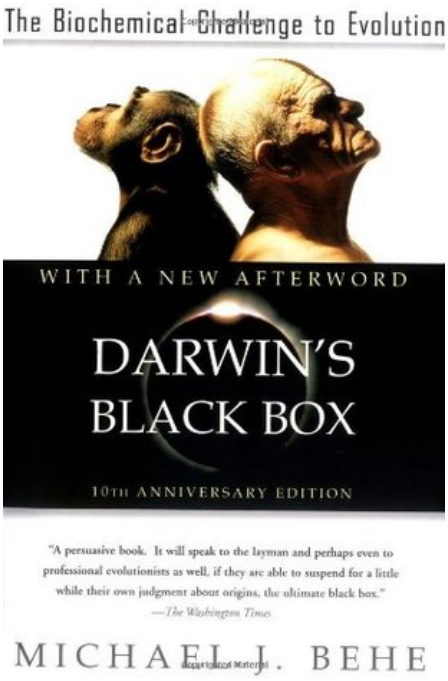

Darwin's Black Box: The Biochemical Challenge to Evolution

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In 1996, *Darwin's Black Box* helped to launch the intelligent design movement: the argument that nature exhibits evidence of design, beyond Darwinian randomness. It sparked a national debate on evolution, which continues to intensify across the country. From one end of the spectrum to the other, *Darwin's Black Box* has established itself as the key intelligent design text -- the one argument that must be addressed in order to determine whether Darwinian evolution is sufficient to explain life as we know it.

In a major new Afterword for this edition, Behe explains that the complexity discovered by microbiologists has dramatically increased since the book was first published. That complexity is a continuing challenge to Darwinism, and evolutionists have had no success at explaining it. *Darwin's Black Box* is more important today than ever.

Darwin's Black Box: The Biochemical Challenge to Evolution Details

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From Reader Review Darwin's Black Box: The Biochemical Challenge to Evolution for online ebook

Charles says

Shirley Tilghman referred to this work in her 2005 George Romanes lecture at Oxford University. She didn't however grapple with its specific and compelling arguments for the impotence of natural selection in accounting for the astounding 'irreducible' complexity of many biological systems. What is astonishing is the sheer number and scale of examples which render attainment by a snail-like, step by step Dawkins/Darwin approach beyond sober acceptance. The wealth of examples like the coagulation system, where a small error means sudden death, and a precarious system operates with positive feedback - makes the gradual trial and error selection look increasingly like the Queen in Lewis Carrol.

The argument is in essence simple - answers Darwin's and Dawkins' own challenge for falsifying his theory perfectly, and involves no religious presuppositions.
To brush it away with vague claims about dual function, tinkering and double genes was uncharacteristically weak minded of Tilghman and sadly all too characteristic of supporters of the materialistic fideism that neo-Darwinism has become.
When will Western intellectual life revive from the stupor into which it has been bewitched by gradualism - and by it shorn of its vigour and glory?

Mike says

Anyone reading this book with an open mind (not Dawkins followers) will have no option but to seriously question the evolution Hypothesis, it is not a theory yet as there is not a shred of evidence to support it.

Heather says

This is a great resource for the creationist. It's written by a scientist who has used some of the intricate biochemical processes to refute evolution. Some of it gets a bit technical, but overall, it's pretty easy to understand.

Cliff says

The best scientific challenge to evolution I have ever read. Deep. Had to read many passages several times, but well worth it.

John says

Michael Behe is a perfect example of Science gone wrong. He demonstrates that science has come so far in

the past several decades that we now have more questions, and fewer answers, than ever before. Rather than inspiring him to seek out the hard-to-find answers, he seems content, indeed determined, to invoke a higher being as the answer to the difficult questions of science. The logic of his arguements is frustrating, to say the least, because it can't be argued. What ever he thinks he knows about biochemistry prevents him from even considering other potencial explanations. He holds stubbornly to science and the scientific method, yet the heart of his arguements are based on analogies to man-made machines, watches and mousetraps, that have almost nothing in common with real live organisms. Not content to compare apple to oranges, he compares apples to gameboys, then argues that no one would doubt the existence of gameboy engineers. How does one respond to this? Add to this a stubborn faith in a Creator God and the arguement completely exits the realm of science.

Mr. Behe's book is a painstaking read, not only for it's lackluster prose and bad science, but most especially for it's arrogance and for the blinders that so obviously obstruct his vision of reality. Here's a clue, Michael: Natural systems portray the illusion of design because only those organisms, only those biochemical systems, only those MOLECULES that conform to the laws of the universe are able to survive, to exist. What is, is because it can be. All else parishes in the struggle for survival, the struggle for resources, the struggle for reproduction. We are here because we obey natures laws, because we have been shaped, tweaked, winnowed by those laws. "Irriducible complexity" is another name for "we don't know the details (yet)." And perhaps we'll never know. But what I do know is that Intelligent Design is an unfortunate product of intelligent people mixing up there causes and effects.

Mr. Behe has been thoroughly discredited by science. It's just unfortunate that there are enough laymen with enough blind faith to keep his ideas circulating through the collective consciousness. Read this book for an exercise in patience, an exercise in cheek biting, or if you're really in to masochism.

Robert says

I had the pleasure of eviscerating this book for a philosophy of science seminar in graduate school. It was suggested that I work up a publishable paper aiming at a more worthy target. My point, which some will think unfair, is that in addition to the author's presumably willful ignorance about the mechanisms of natural selection (he teaches biochemistry at a reputable university), there is a philosophical problem with his approach, viz. that invoking intentional explanations (in terms of reasons and goals, as is proper in psychology and as would apply to a designer) to answer physical questions (in terms of causes and effects in light of existing conditions) is a category error. You can't get there from here. Usually the argument against intelligent design is that it pretends to solve a mystery by invoking a much bigger and troublesome one, and of course he has to face that problem, too. Well, I could write a long essay on this, since I obviously did so at one time!

Pattie says

This is an amazing, scientific explanation of the intricacies of design revealed in the microscopic world that scream, "This is no accident!" Darwin would be the first to repent after reading this. Just the chapter on blood clotting alone is worth getting the book-an excellent springboard for faith sharing.

Murphster Bruno says

This biochemist challenges the simplicity of evolutionary theory by showing that the invention of the modern microscope in the 1850's debunks the basis of Darwinism. The author "dumbs down" the biochemical process for readers like myself and even gives a warning when the explanations are going to get really complicated, which the reader may choose to not read and still feel like he/she understands the basics (which is what I had to do!). A good read that shows how miraculous the human body is. I also really like that Behe argues only from a factual stance and steers clearly away from religion/creationism. As well, he does say that he agrees with evolutionary theory to a slight extent so it's not like he is trying to upset the die hard evolutionists. He is simply stating facts.

Rohan says

As an evolutionary biologist I feel obligated to review this book. Behe really does give a valuable critique of evolutionary theory by giving canonical examples of systems that he believes cannot evolve.

Behe's thesis is weak in the sense that he doesn't discredit evolution, he simply thinks there are cases that evolution cannot handle at the level of cellular systems (A strong version would argue that evolution is impossible or not true).

What makes the book valuable is that it shines a light on a real scientific problem: the evolution of complex biochemical systems. Researchers are just beginning to tackle this problem because it is finally becoming tractable, with the development with fancy genomic/proteomic technologies that hope to fully examine the interactions occurring between genes and molecules in the cell.

Are some biochemical systems irreducibly complex? I doubt it. The state of the art in a 100 years (probably less) should conquer Behe's objections.

The main problem I have with Behe is how he attacks the scientific literature for not attacking the problems he poses, when they have been intractable up until now. It is impossible to give a step-by-step explanation for the evolution of a system, when all the intermediates have long been gone. Evolutionary biologists try to infer this information by comparing genetic sequence, research which Behe quickly papers over by saying that a third of papers published in JME (Journal of Molecular Evolution) simply compare gene and protein sequences. As a biochemist, Behe completely ignores the overwhelming evidence for evolution from genetics. When the problem of how protein sequence codes for protein function is one of the great unsolved mysteries in modern science, looking for evolutionary evidence in modern biochemistry is barking up the wrong tree. We simply don't know how changes in gene sequence over evolutionary time affects how proteins function in their systems context. Behe jumps to design when the groundwork he needs to argue coherently for design (or for evolution) in his examples simply does not exist.

Now that this groundwork is finally being done, Behe's particular argument for design can be settled the old fashioned way--through hard scientific work--in the coming century. Behe is guilty of a cardinal scientific sin: jumping to conclusions without having real empirical data to back up his claim.

NOTE: one of the problems with evolutionary biology is that all living things share the genetic code, meaning that arguing what existed before the LUCA (last universal common ancestor) is pure speculation.

Behe might believe that the LUCA (and its genetic code) was designed, and everything else evolved from it. The problem is that there is no hard evidence for how it all happened, just educated guesses. This is where Behe's criticism is best, but it is also where it is the most meaningless. For a interesting hypothesis (which is probably wrong in many respects) on the evolution of the genetic code, check out this paper: "On the origin of the translation system and the genetic code in the RNA world by means of natural selection, exaptation, and subfunctionalization." Wolf YI, Koonin EV. Biol Direct. 2007 May 31;2:14.

Bud Hewlett says

This along with Darwin On Trial are two of the foundational books in the intelligent design movement. Somewhat heavy.

Kessia Reyne says

Here's why I liked this book: When I was a student of human biology and genetics, I noticed that my professors were always talking about the body anthropomorphically. "The cell, knowing it's low on sodium, picks it up from the blood stream." Okay, two problems with this explanation. One, cells don't "know" things because cells don't have minds and they are not rational. Second problem, nobody liked to go into detail about _exactly_ how the cell takes in the sodium. I guess maybe they didn't have time to talk about that, but I sort of started to like chemistry a little more than biology because there was less vague talk like this. THEN I read Darwin's Black Box. The basic argument of the book is that if you look at life at the level of biochemistry you'll find an irreducible complexity that defies the theory of naturalistic evolution. Great idea, Behe. But here's what I realized: Biochemistry was really the answer to all my unanswered questions in biology. How does the cell take in sodium? Well, it's a chemical process with proteins abounding and enzymes on the scene and all of that. And why were my professors always using verbs like "sensing," "seeing," "wanting," and "knowing" when talking about the body? It's because they don't actually KNOW why these processes work the way they do. That's what biochemistry taught me, and I learned it in this book.

Jim says

Apparently very technical, but is pseudoscience using the old argument that some biochemical systems irreducibly complex. Tries to baffle with tech bullshit. Read these reviews:
https://www.goodreads.com/review/show...
https://www.goodreads.com/review/show...

Stephen Andrew says

I have noticed that all the reviews of this book that are negative or refer to it as well debunked and (every scientist already knows this is crap). Not one can give a specific simple example of how behe can be challenged. simply stated they have no such answer. They can't. Because Behe is right. no matter whether

you believe in creationism or design or evolution or what ever your stance, there simply is no well articulated answer to his argument. when someone points one out. not with some footnote, but a real explanation for how complexity of this order of magnitude can arise by darwinian mechanisms then ,...hooray but i havent seen it anywhere in any review or any analysis by some great scientist such as dawkins, wilson, dennet or any other. Because they simply dont have a rebuttal that makes sense in the darwinian mechanism. maybe there is some other mechanism that can be at work. I dont claim to be a creationist but scientists ought to look at their shortcomings with some guts, instead of just poo pooing what they've read. come on give us a real response that can really challenge what Behe has come up with. be brave. where are you???

James Boling says

I can't claim to be well-versed in biochemistry, so I cannot really comment on the validity of Behe's claims in favor of intelligent design. I was simply floored, however, with the descriptions of the biochemical function of the body. A great example is his use of an analogy with the self-sufficient spaceship as a way to describe cell functions. Simply amazing.

Ammon says

This is a must read for any serious student of the evolution/intelligent-design debate. It lays out a clear, respectful and scientific argument against certain aspects of modern evolutionary theory. It does give clear credit to evolutionary thinking for the many contributions its proponents have made, but points out areas in biochemistry where an evolutionary approach is completely untenable. Behe also summarizes the history of the scientific debate on the question of origins, and concludes with several chapters on the philosophical implications of his work. Although the content is highly technical, it is still amazingly accessible and readable. I would recommend it to anyone who is interested in the subject.
