

# Disappointing delusion

A review of:  
**Unweaving the rainbow:  
 science, delusion and the  
 appetite for wonder.**  
 By Richard Dawkins  
 Published by Houghton  
 Mifflin Company, New York,  
 1998.

## Royal Truman

In 1995, Charles Simonyi of Microsoft endowed a new professorship of Public Understanding of Science at the University of Oxford, and zoologist Richard Dawkins became its first holder, as Simonyi intended. It has been observed that this chair should be renamed for Public Indoctrination in Atheistic Evolutionism.

In the Preface, Dawkins declares that his intention in this book is to make science more appealing to a young generation which prefers the beauty of art and which is drawn increasingly to careers in the social sciences. He uses as a unifying theme a poem by John Keats, who believed Newton had destroyed the appeal of a rainbow by unweaving it to the prismatic colors.

Dawkins first tries to offer the reader some sense of personal meaning in a materialistic, godless universe. Next, he shows how science breaks down complex problems into components, even as a prism decomposes a rainbow into its individual colors. An effort is made to show this is not only useful but in a sense is also beautiful. He uses the opportunity to use scientific and mathematical methods to discredit belief in the supernatural. Finally, he rambles a bit in the last part of the book, discussing topics which don't have much coherence as a theme.

What value or purpose does Dawkins, an atheist, see in life? This is a question confronting everyone at

some point. He tells us we are luckier than those never born, to be on a planet all but perfect for our kind of life. *'More, we are granted the opportunity to understand why our eyes are open, and why they see what they do, in the short time before they close for ever'* (p. 5). He continues, *'isn't it sad to go to your grave without ever wondering why you were born?'* (p. 6).

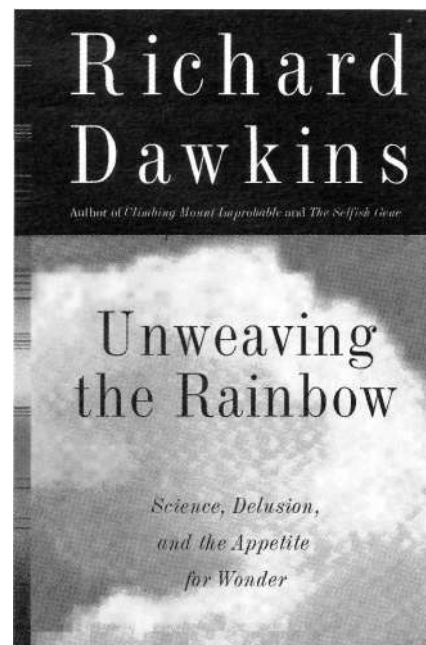
Indeed, I was very interested to see why, in his opinion, we were born and are here on earth. What is the meaning of it all, is there an ultimate purpose? He does not tell us anywhere in the book.

One suggestion about what we can get out of being alive was proposed: *'At least a part of life should be devoted to living that life, not just working to stop it ending'* (p. 5).

He uses poetry as representative of the arts and music, which can enrich our lives. The only implication he offers for life being worthwhile is that life can be pleasurable, and that science can offer a sense of the awe of it all.

One cannot fail to notice a paradox in his thinking. Whereas we should dedicate some time and resources to artistic pleasures, which are not simply part of fighting to stay alive, an obvious question is. Where do artistic and poetic feelings come from in the first place? Throughout this book, evolution is claimed to have shaped every aspect of our bodies and behaviour, and the only consistent answer must be that such artistic genes were selected for and survived. We have now made a full circle: our feelings of beauty and awe exist only because for some reason those possessing such genes were able to survive better.

This atheistic world-view does have logical consequences. It leaves no room for compassion towards hungry gene-carriers in Russia or Kosovo: they don't deserve to survive, since they are not properly adapted to their environments. Viewed in another



manner, their genes had not prepared them to manipulate their surroundings as well as those in other more advanced populations in the world.

Dawkins' worldview excludes other precious feelings we can experience such as the satisfaction of sacrificing to improve society: ethically, culturally and economically. And foremost, the wish in the hearts of many people to please our Creator and the anticipation of spending an eternal life with Him.

This summarizes the first theme in this book. We will soon die, and *'only an extremely small proportion of creatures has the good fortune to be fossilized. As I have said before, I should consider it an honour'* (p. 14). Dawkins has badly confused science with atheism in the early part of his book, and failed to offer an uplifting sense of purpose and fulfillment for being alive.

The major portion of this book is dedicated to debunking beliefs in astrology, superstition and New Age beliefs while suggesting science has not thereby removed some of the charm in living. Statistical arguments are used to show that seemingly amazing coincidences are actually quite probable given the sum of possible ways unusual things can happen and the number of those able to experience them. Dawkins refers

to this as the *'Population of Events That Would Have Appeared Coincidental'* (p. 151).

An illustration is given whereby a magician on television predicts he can stop the wristwatches of 'specific viewers' even as he speaks. The number of watches on the arms of all viewers is great enough to safely make this claim, especially since people tend to associate similar events, like a wall clock stopping at that time, as also having been caused by the magician.

The Christian finds little objectionable in this discussion, knowing that the Scriptures forbid engagement in astrology and other forms of fortune telling. In *The Design Inference*,<sup>1</sup> Bill Dembski develops a rigorous mathematical analysis of which events or circumstances cannot be inferred as occurring by chance and shows that the only alternative is a designer. Such states, distributions or events must be both specified and have vanishing probabilities of ever occurring. Without a proper mathematical understanding, false hypotheses could indeed be assumed.

Examples of superstitious behavior were discussed in this book. Animal psychologists use a Skinner Box, in which rats or pigeons learn by trial and error what behavior will lead to a reward. By using a random reward pattern the test animals would often make incorrect associations and perform irrelevant actions. Dawkins does not miss the chance to add, *'Before we feel too superior, let us remember that large numbers of us were brought up to believe that Samson's fortunes changed utterly after Delilah cut off his hair'* (p. 166). This is the Dawkins many of us are familiar with: the facts are wrong and the analogy badly flawed. The act of disobedience against God's direct orders, even as when Adam and Eve ate of the forbidden fruit, or Moses struck the rock with his rod, is what led to the punishment, and not some irrelevant, non-causal action such as having one's hair cut off.

Several topics were discussed, illustrating how complex things can be

broken down allowing new understanding to be gleaned. An example of a scientifically useful forensic method is DNA fingerprinting. As long as Dawkins sticks to true science, and not speculation, the reader can profit from his writing.

By now, well into the book, Dawkins begins a pattern of dogmatic statements, mostly asides that are not relevant to the general discussion. This is a major turn-off for young keen minds that might be attracted to a scientific career. Instead of offering interesting challenges to tingle one's creative imagination, a flat answer is stated as fact even though it should be apparent to most that alternate explanations are perfectly possible. He just assumes his pet version of evolution, neo-Darwinism, is the final truth and requires no justification.

We are told, *'Growing up, in the fullest sense of the word, should include the cultivation of a healthy scepticism'* (p. 142), and warned that, *'Nevertheless, the confidence with which scientists sometimes state how much we know and how useful science can be, may spill over into arrogance'* (p. 30). Nevertheless, Dawkins proceeds to ignore his own good advice for the rest of the book. We read one unjustified claim after the other, such as:

*'The eardrum ... (via three tiny bones, the famous hammer, anvil and stirrup, sequestered in evolution from the bones of the reptilian jaw hinge) ...'* (p. 68);

*... and you behold a trillion suns as they were when your tailed ancestors peered shyly through the canopy ...'* (p. 116);

*But there are also no devils, no hellfire ...'* (p. 142);

*Ancestors of two different phyla ... were once just two species within a genus'* (p. 201);

*We've already agreed that, as we trace any pair of modern phyla back in time, we eventually converge upon a common ancestor'* (p. 202);

*It suggests that the parts of our brains responsible for doing*

*intuitive statistics are still back in the stone age'* (p. 178);

*The DNA of a camel was once in the sea, but it hasn't been there for a good 300 million years,* (p. 254); *But those fossil animals that have no fossil ancestors must have had ancestors of some kind. They can't have sprung from nothing.*

***Therefore there must have been ancestors that didn't fossilize, absence of fossils does not mean absence of animals.*** (Emphasis in the original) (p. 209);

*For a new body plan — a new phylum — to spring into existence ... no zoologist who thinks through the implications, not even the most ardent saltationist, has ever supported any such notion'* (p. 203);

These are examples of what I would like to call **evidence-free speculation masquerading as science**.

Let's look briefly at a couple of examples. He writes, *'Genes that programme the development of carnivorous guts flourish in a genetic climate that is already dominated by genes programming carnivorous brains'* (p. 220). At first glance, something or other sensible is apparently being said, but just what? How does one get around the problem that body components need a minimum of function to be present concurrently within that generation before the organism can survive? Apparently certain genes, to create an esophagus with a swallowing reflex, would be able to flourish in an environment where other genes had already created a stomach waiting to be filled. Evolution can't look ahead.

This flourishing of genes is vague at best. Michael Denton points out in *Evolution: A Theory in Crisis*: *'Almost every gene that has been studied in higher organisms has been found to affect more than one organ system, a multiple effect which is known as pleiotropy.'*<sup>2</sup> Genes create RNA and proteins, which after undergoing several processes lead to a life-supporting function. In addition, it is

not the same genes which are responsible across organisms to produce homologous physical structures.

Other examples illustrate how details and mechanisms are glossed over: 'A stick caterpillar looks so like the twig it is sitting on that we cannot doubt that natural selection has shaped it to resemble a twig' (p. 172). He also writes, 'The angler fish exploits this tendency. It has a long fishing rod, evolved from a modified spine, commandeered by natural selection from its original location at the front of the dorsal fin ... In some deep-sea species the bait is even luminous' (p. 175).

It is difficult to accept that intermediate structures, which have not been found in any event, could offer any advantage. A mutant spinal bone, jutting out over a fish's head for countless generations, would have hindered mobility and led to a decreased chance of survival.

Dawkins' evolutionary model relies on random mutations in single nucleotides during DNA replication, totally unguided, followed by selection of the fittest by the environment. For the examples, he offers neither evidence nor detailed plausible scenarios. Sir Ronald Fischer has already developed the necessary mathematical framework, and for Dawkins' statements to have any claim to substance, he needs to propose values for the parameters. No attempt to do so is ever done and for good reason.

In *Darwin's Black Box*,<sup>3</sup> Michael Behe points out that there are virtually no mentions of evolution in the 30 major university textbooks on biochemistry. I can confirm this is also true of chemistry, physics, medicine, engineering and mathematics textbooks. Evolution as a theory simply has not been productive in developing the hard sciences. It seems therefore pointless to me to try to interest people in science by hammering away on a theory with no predictive nor clarifying value.

In an attempt to discredit the

biblical doctrine of baptism and substitutionary atonement, Dawkins gives examples of allegedly similar practices from other cultures (p. 183). Indeed, many additional examples can be offered. The Mapuche Indians in Chile still sacrifice a white lamb without blemish as an atonement for sin.

We are told that 'Condescension towards "primitive" cultures is not admirable, so I have carefully chosen examples to remind us that theologies closer to home are not immune to homeopathy or imitative magic. The water of baptism "washes" away sins. Jesus himself is a stand-in for humanity ... in his crucifixion' (p. 183).

Does this not pose some obvious questions? Surely a sensible explanation would be a common origin of such beliefs, distorted over time and geography. The argument

that all these 'superstitions' arose by chance is not very plausible. Perhaps this is evidence for the biblical account of the human race spreading over the earth after a universal flood.<sup>4</sup>

The selective use of stories could be used to 'prove' just about any point. When we read, 'The Dyaks of Sarawak would eat the hands and knees of the slain in order to steady their own hands and strengthen their own knees' (p. 181), I wonder why their brains and behaviour didn't evolve over the eons to correct this error.

Dawkins has some critical comments to make of Harvard paleontologist Gould and others influenced by him. With disapproval Dawkins quotes Gould as saying, 'Current controversies in paleontology are just old controversies being recycled. They preceded evolutionary thought and found no resolution within the Darwinian paradigm ...' (p. 194)

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Goal:      M E T H I N K S   I T   I S   L I K E   A   W E A S E L
Starting:  W D L T M N L T   D T J B K W I R Z R E Z L M Q C O P
Trial #1   S E E   S N X D   E T H A I Y G S W C W V F C Q C Q M Z
Trial #2   F E I Q G N I C   A T Z T L M M X L T K K G G B V W I L
Trial #3   E S N W N J E   Y T N V Q J Z K I F U Y D Y Q Y U I L
Trial #4   O E W E V N L O   B T B W   A R Z D K N Y E W R G B Y L
Trial #5   N E S B A N Z F   Y T M E H U X G J X X L Q W F Z G A L
...
Trial #40  M E T H I N K S   I T   I S   P I K E   A E W E C S E L
...
Trial #164 M E T H I N K S   I T   I S   L I K E   A   W E A S E L
    
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In Dawkins's famous 'Methinks it is like a weasel' simulation, the goal was predetermined and the computer programmed to achieve that end. This is distinctly different to the undirected evolutionary scenario for the beginning of life.

Gould has often pointed out that the fossil record is not consistent with the theory of gradual evolution from one or few ancestors. The rapid 'Cambrian Explosion', in which fully functional organisms with no ancestors appear in the deepest strata, is inconsistent with the major theory of evolution. I do not find the critique justified. If a paleontologist such as Gould feels one theory cannot possibly be correct, and chooses to exclude special creation from consideration, then proposing even an implausible theory appears more honest to me than Dawkins' pretence that there is no problem.

Co-evolution is discussed in the later part of the book. Predator and prey are said to engage in a sort of 'arms race' leading to accelerated improvements on the part of both (p. 232). Since one is limited to select from features which are already available, the net effect should be faster legs for the prey, sharper claws for the predator, and so on, but nothing truly new. Dawkins discusses examples of complex ecosystems, such as a rain forest, in which various organisms are mutually interdependent (p. 222). What conclusions could one derive from the observation that bacteria break down dead matter and create compost for other organisms? That some bacteria produce methane gas playing a regulating role in the chemistry of the earth's atmosphere? (p. 223). Other bacteria can process nitrogen, a very inert gas, right out of the air and provide products useful for other organisms (p. 225). Is it not just a bit too fortunate that various members of the ecosystem just happen to supply basic needs of the whole?

Much is made of co-adaptation, *'the mutual evolution of genes in the same gene pool. In the cheetah gene pool, carnivorous teeth work best with carnivorous guts and carnivorous habits'* (p. 233). Now it is known that many genes are active in the biochemical processes of every organ. They produce different proteins, which together do something useful.

The obvious question must be posed: until these staggeringly complex interactions were in place as an ensemble, just how would evolving genes provide a congenial environment for each other? A grand chaos of useless amino-acid chains, proto-proteins if you will, serves no purpose.

Dawkins commits a sin of which he is often guilty. We read, *'Natural selection is positive and constructive. It is no more negative than a sculptor subtracting marble from a block. It carves out of gene pools complexes of mutually interacting, co-adapted genes'* (p. 233). But nature, unlike a sculptor, must be blind, with no final target. Imagine the wrong pieces of marble being hacked off, with no chance for correction. And in real life once a masterpiece is completed the work stops. Unfortunately, mutations continue to occur in virtually every offspring and cannot be prevented.

The third and last section of the book contains anecdotes of a more entertaining nature, but some of the science is weak. As usual, some claims must be taken with healthy skepticism (like calling retinal a 'protein' (p. 55) earlier in the book). The theory of 'memes', as described here, doesn't seem to say more than that behaviour and beliefs can be learned, and a lot of thinking is stereotypic. Not terribly profound as outlined. Statements like, *'Our minds are invaded by memes as ancient bacteria invaded our ancestors' cells and became mitochondria'* (p. 307) are best left un-commented.

On the other hand, the ingenious way our brain seems to interpret sight and sound, avoiding transmitting redundant information, compensating simultaneously for eye and body movement, was indeed enlightening. Such discussions are science at its best, devoid of the usual atheistic propaganda. But the discussion was then ruined at the end of chapter 11 by the superfluous statement, *'For completeness we must note that the brain itself, and its virtual reality software, are ultimately the products*

*of natural selection of ancestral genes'* (p. 284).

At the end of the final chapter we read the words, *'The spotlight passes but, exhilaratingly, before doing so it gives us time to comprehend something of this place in which we fleetingly find ourselves and the reason that we do so'* (p. 312). It is not clear what that reason is. If indeed everything is one huge, cosmic accident, then we are here because that's just what happened.

Will this book interest the average layperson in science? That seems unlikely. The last book I read was *Darwin's Black Box*.<sup>3</sup> I read it twice, and got excited enough about biochemistry to decide to buy a textbook on it. Before that I had read *Not by Chance* by Lee Spetner.<sup>5</sup> After reading it through twice, I knew I had to get a book on cell biology. These books certainly excited me to dig in deeper.

The present book did not meet my expectations. Any book intending to support a controversial topic should at least offer some serious substance, add a few diagrams and pictures, and stimulate one's thinking with some hard facts.

## References

1. Dembski, W. A., 1998. *The Design Inference. Eliminating Chance Through Small Probabilities*, Cambridge University Press, Cambridge.
2. Denton, M., 1985. *Evolution: a Theory in Crisis*, Adler & Adler, Bethesda, Maryland, p. 149.
3. Behe, M. J., 1996. *Darwin's Black Box: The Biochemical Challenge to Evolution*, The Free Press, New York, p. 182.
4. For further refutations of claims that Christianity was derived from paganism, see Ronald Nash's online article, *Was the New Testament Influenced by Pagan Religions?* <<http://www.iclnet.org/pub/resources/text/crj/crj-jrnl/crj0169a.txt>>.
5. Spetner, L.M., 1996, 1997. *Not By Chance*, The Judaica Press, Brooklyn, NY.