Another critique of Intelligent Design fails

A review of
Why Intelligent Design Fails: A Scientific Critique of the New Creationism
edited by Matt Young and Taner Edis
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No scientist who proposes a scientific hypothesis should be surprised when that hypothesis is tested and criticized by other scientists. But it is quite different when those critics reject that hypothesis as inherently unscientific and resort to abusive *ad hominem* attacks against its proponents. This is exactly how *Why Intelligent Design Fails* treats Intelligent Design theorists. Many of those who argue for Intelligent Design are by no means young-earth creationists; most accept long ages and some even do not object to some variation of theistic evolution. However, simply because they question the adequacy of naturalistic evolutionism as an explanation for how life began and developed, they are ridiculed as pseudoscientists by those who contributed to *Why Intelligent Design Fails*. But close examination of the criticisms of these scientists shows that that their arguments rely on misconceptions of ID and an innate bias against supernatural explanations in origins science.
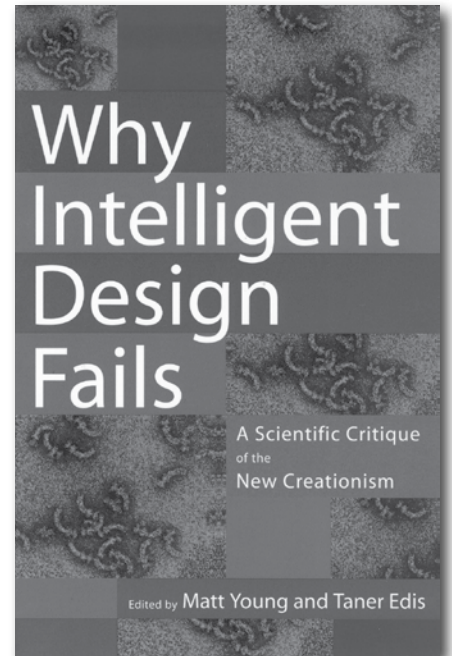
Mangling the mousetrap

Irreducible complexity, made popular as a design argument in Michael Behe's *Darwin's Black Box*, is mischaracterized in a couple essays. Matt Young imagines that he disproves Behe's "mousetrap analogy" when he proves that a mousetrap is somewhat functional without a latch (p. 21). David Ussery states that the mousetrap analogy is flawed because there are models of mousetraps with fewer than five parts (p. 49). However, both of these arguments miss the point of the mousetrap analogy. Behe never says that *every* part of an irreducibly complex system is necessary for it to function, simply that there are a sufficient number of interdependent parts in the irreducibly complex system that it could not have arisen by a series of successive slight changes.[1] And he never rules out the possibility of other, hypothetical or actual, simpler systems which perform the same function; the point is that the irreducibly complex system *in question* could not have come about by successive, slight changes.[2] Neither of the above authors succeed in dismantling Behe's argument, but instead attack straw man versions of irreducible complexity.

Common descent: all or nothing?

In Gert Korthoff's essay, "Common Descent: It's All or Nothing", he specifically attacks the "creationist orchard" model,[3] asserting that the creationist acceptance of certain kinds of descent from common ancestors leads to "an arbitrary fragmentation of the tree of life and a logically inconsistent theory of descent" (p. 32). He states that "[t]he dynamic-creation model uses standard neo-Darwinian processes when convenient but also introduces mysteries and fatal inconsistencies" (p. 38).

This criticism is flawed because Korthoff, like some other authors in the book, fails to recognize that specialization within a kind, which can lead to speciation, never results in the kind of change which can create new structures. So he says that it is inconsistent to accept the descent of all dogs from a common ancestor but not to accept that dog and fish have a common ancestor. He also does not address the argument that similarity of structures could just as easily come from a common designer as from common descent. He also hijacks processes like natural selection as an exclusive property of neo-Darwinism, although creationists taught such things before Darwin. Nor is mutation an exclusive property of Darwinianism. Both are important parts of the biblical creation model.

Korthoff does, however, expose a weakness in Behe's position of theistic evolution. "He does not say why he accepts common descent. … Perhaps he does not realize the consequences of that statement."

He explains,
"Behe cannot claim that common descent is true except when irreducibly complex systems appear. Common descent does not allow for that kind of exception because that implies a violation of the laws of genetics" (p. 43).

Of course the biblical creationist position does not require any divine intervention into the laws of genetics after the creation of the original kinds; in the creationist model all change since then has been speciation, which

needs no new genetic information. But Korthoff does not have any ground to criticize Behe, because *no* evolutionary model has proposed a mechanism that would generate the required encyclopedic genetic information in living organisms, much less at the rate which would be needed for evolution to occur.[4]

Evolved irreducible complexity?

Gishlick claims that proponents of intelligent design are making a simple error when they say that irreducibly complex systems cannot evolve: "it presupposes that functions do not shift during evolutionary history" (p. 58). But evolutionists who claim that a certain function evolved over time almost always resort to just-so stories with no basis in the fossil record and with no mechanism for the sort of change they propose happened.

The shortcoming of Gishlick's explanation for the evolution of irreducibly complex systems is demonstrated when he attempts explain the origin of flight systems in birds. After a lengthy explanation of the anatomy involved for flight and how it is irreducibly complex according to Behe's definition, he attempts to explain how such a system could have evolved. He theorizes that birds evolved from bipedal predatory dinosaurs, which used their front limbs for grabbing prey (pp. 66–67). He proposes that first the range of wrist movement was restricted, and the number of fingers was reduced to three. Then simple hair-like feathers appeared, most likely serving as insulation. However, this would be a dead end; feathers in flightless birds that are needed only for insulation are usually hair-like without the elaborate structures required for flight. Then as the dinosaurs became more birdlike, the range of movement in the wrist was further restricted and grew true feathers on their hands and tails (pp. 68–69). At this point the creature is not quite a dinosaur which can catch its prey with its hands; covered with feathers and with restricted movement, the hands would be almost useless for this

purpose. But neither is it a bird which can fly. And this is only pages after Gishlick refutes the idea of teleology in evolution!

Gishlick finishes his fanciful explanation of how the wing could have evolved, citing *Archaeopteryx* as the first example of flight in dinosaurs, while failing to acknowledge any of the problems with this idea—such as the evidence that *Archaeopteryx* was a strong flyer, not primitive, and that its fossils are dated in the evolutionary scheme as older than its supposed dinosaur ancestors. He does not bother to explain how the other features present in birds, such as the specialized lungs, brain structure for flight, and changes in musculature would have happened simultaneously.[5,6]

Painting by Steve Cardno

Gishlick cites *Archaeopteryx* as the first example of flight in dinosaurs, but, according to its evolutionary dating, it predates the dinosaurs which are supposedly its ancestors.

Evolution of the bacterial flagellum?

Creationists and Intelligent Design theorists use the bacterial flagellum as an ideal example of an irreducibly complex system. It looks like a microscopic machine. Ian Musgrave claims that such a system could easily evolve, by a series of intermediaries whose parts originally had other functions. But knowledgeable creationists have addressed this argument:

> "[This argument] is like claiming that if the components of an electric motor already exist in an electrical shop, they could assemble by themselves into a working motor. However, the right *organization* is as important as the right components."[7]

In other words, even if the original parts existed in the cell doing other things, that does not mean they can form themselves into the

irreducibly complex system, because the information to put them together correctly does not exist. Furthermore, only 10 of the components in the motor can be explained by co-option, the other 30 are unique to that structure.[7,8]

Order versus complexity

Niall Shanks and Istvan Karsai, the authors of *Self-Organization and the Origin of Complexity*, confuse order and complexity, and say that instances of the former in nature can lead to the latter. They use the type of order found in snowflakes, Bénard cells, and other instances of self-ordering to argue that irreducibly complex systems can be formed in nature. But self-ordering produces *low*-information structures, comparable to a repeating sequence of ABCDABCD, which can be explained by the properties of the materials themselves, and serve to minimize free energy. But specified complexity involves much more information, comparable to Shakespeare's plays, and cannot be explained by the properties

of the material itself—nothing in the properties of ink and paper will create meaningful sentences of writing.[9]

Shallit and Elsberry argue against specified complexity:

"Dembski insists that specification is a black-and-white classification: an event is either specified or it isn't. But it doesn't make any sense to say, for example, that the text of Shakespeare's *Hamlet* is specified, but exactly the same text with an extra comma at the end is not. … We can continue the process ad nauseam; without assessing a cost, *every* event is specified" (p. 134).

But this is nonsense. One could argue that the probabilistic nature of design would carry over to this example; the perfect text of *Hamlet* would have a very high probability of being specified, the *Hamlet* with the extra comma would have almost as high a probability, and copies of Hamlet with more and more errors would start to have lower probability of being specified. Eventually it would devolve to the point of a *Hamlet*-length sequence of characters that is no longer recognizable, and has a very low probability of being specified. There are many more ways to be non-*Hamlet* than ways to be *Hamlet*, so when there is a copy of *Hamlet*, even a slightly corrupted one, its existence must be explained. It is not sufficient to say that every sequence of letters is improbable so *Hamlet* was just a lucky arrangement of characters.

Design without intelligence?

Many of the authors are hostile to the idea that intelligence can produce things that chance cannot. For example, Shallit and Elsberry write, "Dembski thinks that intelligence has a magical power that permits it to do something that would be impossible through natural causes alone" (p. 129). If this occurred anywhere except in a book against Intelligent Design, the statement that intelligence can accomplish things that random forces cannot would seem self-evident. When wind and water carve rock, the result

is canyons and rock formations; when an intelligent being carves rock, the result is the likes of Michelangelo's *David* or the four presidents' heads at Mt Rushmore. Presumably even the authors of this volume do not believe that time, chance, and natural selection could produce their book—without intelligence? If it is possible to tell whether a human intelligence was behind the design of an object, then one can surely tell that structures which are far more complex are the result of a superior Designer.

Archaeology and design

Gary Hurd criticizes Dembski's explanatory filter, saying that because it aims to get no false positives, it must have some false negatives. He uses the example of stone hammers:

"Dembski aims to get no false-positive errors, so the explanatory filter must reject all slightly used stone hammers or else allow a flood of false positives—that is, classifying all stones of appropriate size and shape as artifacts" (p. 113).

But, as Hurd himself recognizes, design is a probabilistic explanation: there may be a low probability that a certain stone was used as a hammer, but high probabilities that arrowheads, pottery shards, and statuettes were designed by humans. The explanatory filter would not say that a certain stone was definitely not used as a hammer (which would require an exhaustive knowledge of the stone's history), but would assign a high or low probability that it was.

Hurd misses the point entirely. A positive means that design (intelligence) is inferred; natural processes are an inadequate explanation. Demski sets the bar high, aiming for no false positives so that when design is inferred, it cannot be argued against. So is Hurd arguing that the bar should be set lower so that design should be inferred sometimes where it might not be necessary?

Hurd argues, "Without complete knowledge of all possible hypotheses, we cannot correctly assign chance and design hypotheses within the explanatory filter" (p. 111). But this would mean that it would *never* be possible to say that something was designed, even in undisputed cases such as Mt Rushmore or a sandcastle on the beach.

There are obviously sound criteria for determining whether something is the result of intelligence; otherwise the SETI scans of outer space for signals from intelligent beings would be pointless. Hurd argues that ID's refusal to identify the designer is a critical weakness in their theory (p. 115). While creationists may agree on that point,[9] SETI proves that it is possible to identify a product of intelligent design without knowing anything of the nature of the intelligence, otherwise they would not be able to differentiate a broadcasted message from random static.[10]

"Playing Games with Probability"

Shallit and Elsberry, in their essay "Playing Games with Probability", claim that intelligent design theorists misuse probability in the same way that Bible code pseudo-scientists do. They more specifically argue that Dembski's use of probability is unjustified and inconsistent (p. 130), and gives "wildly differing results" depending on which method is used (p. 132).

They, along with many of the other authors, use genetic algorithms, and specifically Dawkins' "weasel" algorithm, to prove that natural selection and mutation are sufficient for evolution to occur. But, as even the authors acknowledge, they do not accurately represent biological evolution, so it is dishonest to use the algorithms as proof for evolution.[11–13]

It is common for evolutionists to use situations (as Shallit and Elsberry do), such as flipping a coin 50 times to come to an improbable sequence, to demonstrate how improbable things can happen. But in that example, there

must be *some* outcome. But it was not necessary that the universe be suitable for life, or that life would occur even in a universe suitable for it. Since there are many more ways for the universe to be unsuitable for life than suitable for it, and for something to be dead than to be alive, this warrants a sufficient explanation.[14]

Cheating with chance

Victor Stenger[15] deals with the argument that the universe is fine-tuned for life by saying that different physical laws might have enabled different forms of life. While he admits that carbon seems to be the best-suited element to build life forms, he says that "to assume that only carbon life is possible is tantamount to 'carbocentrism,' which results from the fact that you and I are structured on carbon" (p. 178). He goes on to say that life could have been based on silicon, based on its use in computers, and to argue that life may someday be discovered which evolved on other planets. Of course, there are no silicon-based or extraterrestrial life forms he can point to as examples. Not content to propose scenarios with no evidence in this universe, he moves on to the multiverse theory, which is by definition untestable (pp. 182–184).[16] As evolutionary scientists are so fond of stating, if it is untestable or non-falsifiable, it is not science, so by their own standards the multiverse hypothesis is lacking scientific credibility.

Is intelligent design science?

Matt Perakh and Matt Young authored the chapter "Is Intelligent Design Science?", and of course their answer is a resounding "no". They claim that it denies "established scientific fact", interestingly by pointing to denial of billions of years by young-earth creationists, and the acceptance of long lifespans by some creationists who accept billions of years (pp. 186–187). But few in the mainstream ID movement would accept either. Besides, it may strike one

as slightly hypocritical of evolutionists to call questioning "established scientific fact" on the part of ID theorists unscientific, but otherwise a virtue when it is evolutionists doing the questioning. The claim about "untestable hypotheses" is laughable when one takes into account the multiverse theory routinely used to explain away the fine-tuning required for life to be able to exist in the universe (p. 187).

To refute all the arguments in this book would require a book in and of itself. Indeed, most of the arguments are addressed in Jonathan Sarfati's *By Design*, though it was not written to refute this book specifically. Where *Why Intelligent Design Fails* does point out a valid weakness in ID theory (which is rare), it is one of the weaknesses which results from ID's refusal to name the Creator, or from the acceptance of theistic evolution by some ID theorists. These are weaknesses that biblical creation does not share with ID theory, so there is nothing in this book that should challenge an informed creationist.

References

1. Behe, M.J. *Darwin's Black Box: The Biochemical Challenge to Evolution*, The Free Press, New York, p. 39, 1996.

2. Behe, M.J., A Mousetrap Defended: Response to Critics, <www.arn.org/docs/behe/mb_mousetrapdefended.htm>, 31 July 2000.

3. As presented in Sarfati, J. *Refuting Evolution*, ch 2, Creation Book Publishers, 2008.

4. Lightner, J. Gain of function mutations: at a loss to explain molecules-to-man evolution, *Journal of Creation* **19**(3):7–8, 2005.

5. See Sarfati, J. *Refuting Evolution*, ch. 4.

6. Since the book was published, new research has shown that the *fixed* femur in birds is necessary to prevent the air sac from collapsing, but their presumed theropod ancestors had a *movable* femur, so couldn't have possessed the air sacs needed for the avian pulmonary system. Quick, D.E. and Ruben, J.A., Cardio-pulmonary anatomy in theropod dinosaurs: Implications from extant archosaurs, *Journal of Morphology*, 20 May 2009 DOI:10.1002/jmor.10752.

7. Sarfati, J., *By Design*, Creation Book Publishers, Australia, pp. 136–139, 2008.

8. And despite the usual claims that the flagellum evolved from a secretory apparatus, it is more likely that the latter devolved from the former, even according to evolutionary experts. This of course means that the origins of the flagellum are unsolved. For example, "We suggest that the flagellar apparatus was the evolutionary precursor of Type III protein secretion systems", Nguyen L. *et al*., Phylogenetic analyses of the constituents of Type III protein secretion systems, *J. Mol. Microbiol. Biotechnol.* **2**(2):125–144, April 2000.

9. Sarfati, J. *By Design*, pp. 227–229.

10. Sarfati, *By Design*, pp. 15–17.

11. Batten, D., Genetic algorithms—do they show that evolution works? <creation.com/algorithm>, 2008.

12. Truman, R., The weasel returns: Truman replies to Curtis, *Journal of Creation* **15**(2):55–58, 2001.

13. Abel, D.L., The Capabilities of Chaos and Complexity, *International Journal of Molecular Sciences* 10:247–291, 9 January 2009 doi:10.3390/ijms10010247 (emphasis added): *All too many evolutionary computationists fail to realize the purely formal nature of GA [genetic alogrithims] procedures*. GAs are not dealing with physicodynamic cause-and-effect chains. First, what is being optimized is a formal representation of meaning and function. A representation of any kind cannot be reduced to inanimate physicality. Second, "potential solutions" are formal, not merely physical entities. Third, at each iteration (generation) a certain portion of the population of potential solutions is deliberately selected by the agent experimenter (artificial selection) to "breed" a new generation. The optimized solution was purposefully pursued at each iteration. The overall process was *entirely goaldirected* (formal). *Real evolution has no goal*. Fourth, a formal fitness function is used to define and measure the fittest solutions thus far to a certain formal problem. The act of defining and measuring, along with just about everything else in the GA procedure, is altogether formal, not physical.

14. Sarfati, *By Design*, ch. 16.

15. For refutation of his atheopathic book, *Has Science Found God? The Latest Results in the Search for Purpose in the Universe*, see Weinberger, L. and Weinberger, D., Designs on the designer, *Journal of Creation* **19**(3):33–36, 2005.

16. Sarfati, J. *By Design*, ch. 15.