

The *KFC* of Creationism
(and the Philosophy of Double Dipping)

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If anything, creationism loves a struggle. Science has rejected it, federal courts have ruled that it has no place in science classes, and it has lost most of its standing in popular culture. Fish-with-foot bumper stickers or political cartoons depicting chimps in the oval office have a recognizable message only because evolution has become commonplace.

Still, creationism keeps struggling to gain legitimacy and power. In fact, it's evolving. Taking a tip from Madison Avenue, its intellectual leaders have a new marketing plan. Much as Kentucky Fried Chicken attempted to shed the artery-clogging, carcinogenic associations of "fried chicken" by renaming itself *KFC*, these creationists have realized that "creationism" and "creation-science" themselves are c-words that they need to get away from. They hope that their new program, Intelligent Design or ID, will soon thrive as a leaner, less-fattening and, more appealing product for school boards and courts throughout America..

What's new? ID officially dispenses with creation-science theories about floods, arks, and those six days of cosmic toil. Gone too is the constant bickering of creationist factions, each with their own take on these matters. ID now presents a front that is unified, focused, and dedicated to making one basic point (in ID-circles, this is called "the wedge strategy"): how is it possible that organisms as complicated as we find them could have come into being merely by the blind forces of natural selection? ID theorists insist that it is not possible, and that Darwinists are simply mistaken to believe otherwise.

What's old? The meat of ID's argument. It's the infamous "argument from design" popularized in the 18th century by William Paley, an Anglican priest who argued in 1802 that "design must have a designer." Natural forms that appear machine-like, and which appear necessarily to have been designed by an intelligent machine-maker (Paley's example was a watch found on a beach), really *were* designed by some intelligent agent and can bear no other interpretation. With good reason, however, ID theorists have trimmed away some of the fat in Paley's thinking. For Paley, beholding an intricate natural mechanism or design pointed directly to the God of the Bible—"that designer must have been a person. That person is GOD," he wrote. According to the wedge strategy, however, ID leaves matters of faith, doctrine, and Biblical interpretation to others (say, schoolteachers) who can step into the breach once Darwinism's logical and scientific fallacies have been pried apart. The new, evolved ID is strictly scientific. It stands with science, both fins on the ground.

For critics of creationism, ID is useful because it better reveals the logic at its core and, in turn, helps solve some of the puzzles surrounding it. How is it, for example, that without any scientific credentials creationism always finds adherents? How can a handful of ID theorists seriously believe that by dusting off an 18th-century argument and wrapping it inside a 21st-century acronym they can undermine a long and successful scientific tradition? Why is it, finally, that people who probably do not understand ID's technical arguments about probabilities,

biological configuration spaces, and “irreducible complexity” nonetheless identify with ID and believe it’s on to something extremely important?

Some clues are suggested by ID’s philosophy of science, that is, its understanding of how science works, how theories are put together, and how they operate alongside our other beliefs. One key to the popular appeal of Philip Johnson’s highly influential arguments attacking Darwinism is the prior success of Thomas Kuhn’s *Structure of Scientific Revolutions*. For over forty years, Kuhn’s book (known as *SSR* in the pantheon of acronyms to which ID aspires) has taught us that science consists in tower-like “paradigms.” Paradigms, according to Kuhn, are conceptual wholes. They either stand tall and strong, or they fall to pieces when they are challenged in the right ways by new, revolutionary paradigms. Though this and other aspects of Kuhn’s model of science have been discredited, it has led many to think that they can assist the rise of creationist biology or faith-based science merely by throwing enough rocks and stones at Darwinism.

Other aspects of ID’s philosophy of science reveal why creationists take Darwinism’s collapse to be immanent. William Dembski and Michael Behe, arguably the two most influential ID theorists, are convinced not only that Darwinists are mistaken in their belief that natural selection can produce complex organs and organisms. They also believe that Darwin’s theory of natural selection never matured into a valid, credible scientific theory. It’s only been masquerading as one for well over one hundred years. And, ID theorists believe, it’s time is up.

To see why Dembski and Behe believe this, we must look at their efforts to revitalize Paley’s argument. Behe writes about “irreducibly complex systems,” such as eyes and bacterial flagella. These, he insists, are “headaches for Darwinian theory because they are resistant to being produced in the gradual, step-by-step manner that Darwin envisioned.” Why? Because “irreducibly complex systems” cannot function if they are taken apart. Were they to have evolved gradually into their present form, they would have earlier lacked the parts they now have, or those parts would be ill-adjusted to each other in the precise ways their functioning requires. These half-formed eyes, consequently, would not have functioned and therefore could not have been selected in the struggle for survival. Natural selection could not have made eyes, Behe insists. They must have been fashioned over the course of evolution by something else.

None of this would be a surprise to Darwin, who knew his Paley well. It may seem “absurd in the highest degree,” he confessed in his *Origin of Species*, to suppose that eyes “could have been formed by natural selection.” But he urged his readers to look at the situation through the lenses of his new theory:

Yet reason tells me, that if numerous gradations from a perfect and complex eye to one very imperfect and simple, each grade being useful to its possessor, can be shown to exist; if further, the eye does vary ever so slightly, and the variations be inherited, which is certainly the case; and if any variation or modification in the organ be ever useful to an animal under changing conditions of life, then the difficulty of believing that a perfect and complex eye could be formed by natural selection, though insuperable by our imagination, can hardly be considered real.

Eyes, that is, meet the standard criteria—variability, usefulness, and heritability—required for evolution by natural selection. They may challenge our common sense, but they don't really challenge the theory of natural selection.

Behe doesn't buy it, of course. Neither does Dembski, who complains that Darwinists don't have convincing evidence or argumentation to support their faith in natural selection. He puts his objections in terms of the "configuration space" mapped out by eyes in all their differences and variations. Think of the history of life as a path slowly tracing its way through this abstract space. The question, then, is how can we be sure that it is Darwin's process of natural selection driving this evolution from point to point (say, from primitive eyes to less primitive eyes) and not some other process (such as, of course, the handiwork of a supernatural intelligence)?

"One can traverse biological configuration space by taking sufficiently small steps (or, as Darwin put it, 'numerous successive slight modifications')," Dembski admits. Yet just because different kinds of eyes exist now or in the fossil record (as Darwin pointed out), that does not demonstrate that natural selection caused those modifications. "For the Darwinian selection mechanism to connect point A to point B in configuration space, it is not enough that there merely exist a sequence of baby-steps connecting the two," he writes. "In addition, each baby-step needs in some sense to be 'successful.' In biological terms, each step requires an increase in fitness as measured in terms of survival and reproduction." "What guarantee is there," Dembski asks, "that a sequence of baby-steps connects two points in configuration space?" To really know for sure that a sequence of fossils depicts evolution by natural selection, we need to know about each of the intervening steps and the evolutionary advantage that each step provided for the populations in question.

Behe agrees:

Evidence of common descent is not evidence of natural selection. ...Natural selection...is a proposed explanation for how evolution might take place—its mechanism—and so it must be supported by other evidence if the question is not to be begged.

Their objection does make sense. But that is only because it is framed within a curious and elaborate philosophy of science—one that requires good theories not only to be consistent with the evidence, to be consistent with other areas of science, and to provide new explanations of natural phenomena. Independently of all that, Dembski and Behe believe, good theories must provide or contain some kind of proof or non-question begging "guarantee" in support of themselves.

On this view, Darwin once had promise. At first, did everything right when he suggested that a broad, well-known set of facts involving animal husbandry, embryology, natural history, and geology could be explained and connected in our understanding if it were true that life on earth evolved (mainly) according to the forces of natural selection. Indeed, nearly all biologists will agree that Darwin was on the right track, especially now that his theories have been complemented with modern genetics and developments in geology, natural history, astronomy and other sciences.

But Darwin never finished the job. Neither Darwin nor his followers has put together a convincing scientific account of why it is that Darwin's theories are true or, at least, how we can be certain that his theories are the best available. If you have the feeling that something's not quite right here, that's because Dembski and Behe have lured us (and possibly themselves) into a most dangerous and seductive philosophical trap.

As George Costanza would put it, ID theorists are *double dippers*. They dip their chicken wings go into the barbeque sauce, take a bite, and then—violating accepted standards of decency—they dip again. But there's an important difference. The double dipper that infuriated George Costanza on that episode of *Seinfeld* was not confused about his methods or his motives. He simply wanted *more barbeque sauce* than the other, less Neanderthal, guests at the cocktail party. So, he double dipped.

Behe and Dembski, however, believe that there is something special and different in that second dip that is not present in the first. For they are plainly not asking Darwinists provide *more* science, *more* evidence, or *more* arguments of the sort they've provided so far. If that's what they wanted, then they would naturally take up biological research (or encourage others to do so). Instead, they are calling for different kind of investigation that makes use of "other evidence" (as Behe puts it) or to provide a some kind of "guarantee" (as Dembski puts it) that Darwinist explanations are trustworthy and sound.

Biologists would be pleased if double dipping like this were an option. They would be happy to know that, for all the resources and creativity they invest in their work, they are not making mistakes or narrowly missing great, momentous discoveries. Imagine taking a break from your notebooks, computations, or instruments to consult all that other, independent evidence that Behe speaks about. Imagine constructing the kind of guarantee that Dembski has in mind to show your funding agencies and your colleagues that, in fact, you're on the right track. At least, scientists could prepare themselves for disappointment— "Jeez! There goes my Nobel. I *knew* I should have double dipped before I started this line of research!!

In fact, however, scientists undertake this kind of second-guessing and self-criticism *routinely*. And to do it they use all the conceptual, logical and empirical resources they can find. ID's philosophy of science mistakenly duplicates or divides its picture of science, as if the work of producing, testing and refining scientific theories (such as Darwin's) were separate and distinct from the task of being as careful, critical, and as resourceful as possible along the way. Unless barbeque sauce can suddenly transform into truffle sauce or caviar, there's no scientific point to the kind of epistemological double-dipping that Dembski and Behe have in mind ID when they criticize Darwinists. Those criticisms, therefore, are empty.

While creationists are most likely mistaken to expect sudden, miraculous transformations in nature (and in dipping bowls), they are probably not mistaken about the effectiveness of this duplicated, double-dipping philosophy of science for promoting creationism. On the one hand, this philosophy of science seems superficially plausible and natural. If we want our theories to fit well with the facts they explain, to be reliable and fruitful, and true (at least so far as we can tell), then we can reasonably demand that scientists be *sure, scientifically sure*, that theories meet

these criteria. Yet, as soon as this conception of science is in play, it becomes easy to argue, as creationists always do, that several things are very *wrong* with Darwinism. First, as Behe and Dembski tell us regularly, Darwinism is incomplete. Although Darwin *tried* to explain the fossil record by positing the mechanism of natural selection, he actually failed to prove his conjecture, for there remain other possibilities (namely, design). This philosophy of science thus breathes new life into idea that there is a scientific controversy about Darwinism, one that creationists and oval office chimps believe should be taken seriously in biology classes.

Second, it enables ID theorists to argue that there is an organized conspiracy to hide Darwinism's failings from the public. As Dembski puts it, there is an "artificial exclusion of intelligent design from scientific discussion." Behe routinely suggests that Darwinist critics of ID are vehement and angry *precisely* because they fear being exposed as scientific frauds. To those who feel alienated by science or resentful of our largely materialistic culture, ID theory can easily seem like its on the side of the little guy.

Still, this double-dipping philosophy of science does not explain all of creationism's popular success. We must also return our attention to Johnson, a law professor who articulated the "wedge" strategy and, in his book *Darwin on Trial*, pioneered this aggressive, turn-the-tables-on-the-witness approach to Darwinism. It is only in the wake of Johnson that Dembski, Behe, and others have learned how to make a case for creation science that does not draw attention to creation science itself (wisely, since it has no scientific credentials or successes) and that focuses exclusively on these alleged failings of Darwinism and naturalism. While Kuhn's it's-either-one-paradigm-or-the-other picture of science helped Johnson plan this strategy, he also absorbed some insights and techniques from another public relations campaign that was tremendously successful in the early 1950s. During those years, college professors were attacked and, in some cases, fired not for promoting Darwinism or naturalism but, rather, a different "ism"—one that, like Darwinism today, was perceived by many Americans as a threat to morality and culture.

So Colonel Sanders is not alone in telling us something about the logic and marketing of ID theory. There is also the infamous Senator McCarthy who, as I will examine on another occasion, tells us much about the psychological and emotional tools wielded by creationism and its relentless crusaders.

Sources:

Michael Behe, "Evidence for Design at the Foundation of Life" and "Answering Scientific Criticisms of Intelligent Design."

Charles Darwin, *Origin of Species*.

William Dembski, "Unintelligent Evolution."