

# An unconventional evolutionist validates the irreducible complexity of living things

***Purpose & Desire: What makes something 'alive' and why modern Darwinism has failed to explain it***

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HarperOne, New York, 2017

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Dr J. Scott Turner is a biologist (physiologist) and Professor of Biology at the State University of New York College of Environmental Science and Forestry in Syracuse, New York. He has published numerous books, and he has been featured in a variety of science programs.

Turner identifies himself as an enthusiastic Darwinist (pp. 6–7). He also professes to be a Christian though, in his own words, “not a very good one” (p. x).

Though unambiguously an evolutionist, Turner contends that existing concepts of organic evolution are excessively reductionistic, and inadequate as they stand. The author speculates that, just as individual organisms have an internal homeostasis, so also does nature as a whole, and that is what is ultimately supposed to drive evolutionary change. Turner’s views can be summarized by the following statements:

“For nearly a century, our choice has been stark: the purposeless world of the materialist, or the demon-haunted world of the vitalist. For nearly a century, we have been

forced to choose, and casting your lot with one has meant being cast out from the other. But there is a middle path to follow, which I have argued in this book means coming to grips with life’s truly distinctive nature—its purposefulness, its intentionality, and its distinctive intelligence. Failing to do this will only cast us deeper into the shadows of irrelevance” (p. 298).

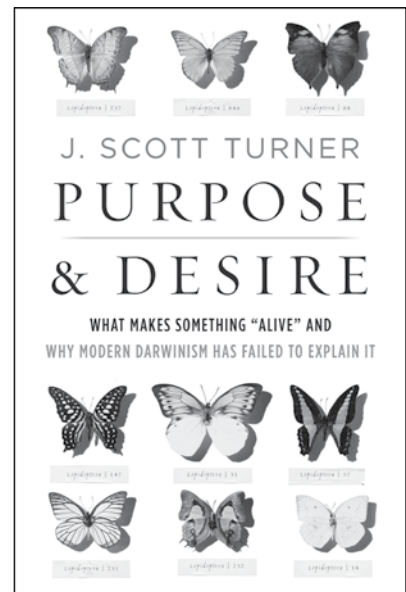
I do not find the author’s ideas, on purpose-driven evolution, either particularly lucid or convincing. However, in voicing his ideas, Turner explicitly endorses many of the considerations raised by scientific creationists and by proponents of Intelligent Design (ID). That is the focus of this review.

## Inadequacy of evolutionistic origin-of-life hypotheses

Decades ago, creationist biochemist Duane T. Gish had pointed out that any ‘chemical soup’ model suffers from a number of fatal defects, not the least of which is the fact that there would be an astonishing variety of chemical species in any mix, and hence any ultimately ‘relevant’ chemical species would be diluted into insignificance.

Using rather picturesque language, J. Scott Turner reaffirms this sobering fact. He comments:

“Worse, the more we have learned, the more daunting the problems have become. First, there is the problem of yield. What cooks up in a Miller–Urey flask is a diverse



stew of organic molecules, most of which are uninteresting, with the interesting bits invariably present in quite small quantities. Imagine wanting to find a particular type of screw in a warehouse of brads, nails, nuts, clips, and a zillion other fasteners, all jumbled together in a mountain of little scraps of randomly shaped metal. How can you argue that a screw is in there at all—or in the warehouse of the primordial soup, how something lifelike could come from that? The answer is, ‘Not very plausibly’” (p. 233).

Dr Gish had focused on the synthesis of prebiotic proteins. Since there are 22 amino acids in existence, there are 22 different possibilities for the first position in the protein, times 22 different possibilities for the second position, times 22 different possibilities for the third position, etc. For even a medium-sized protein, there are more different possibilities than all the atoms in the known universe. Turner alludes to the implications of the consideration raised by Gish, “When you have enormous numbers of the precursors jumbling around, there is a finite chance that just the right sequence of events will occur; but the more interesting

the desired product is, the smaller the chances of it arising spontaneously” (p. 233).

### Clay-crystal magic to the rescue?

Author Turner tries to get around the problem of the origin of life by dusting off the clay-crystal hypothesis for the origin of life, advocated by Scottish chemist A. Graham Cairns-Smith (1931–2016). Clay minerals, like all minerals, serve as templates for the growth of like-shaped minerals. Thus, in a sense, clay crystals can already naturally ‘reproduce’ by virtue of being crystals. They supposedly could be subjected to ‘natural selection’ based on their catalytic capability (that is, their presumed ability to ‘devour’ less-catalytic crystals, thereby driving the latter to extinction). According to the scenario—and I stress the word scenario—these super-catalytic crystals could successively grow more complex as a result of continued natural selection. Finally—lo and behold—a living thing would emerge. What’s more, the carbon that is part of this primitive carbon-silicate life would literally take on a life of its own. That is, it would ‘kick away’ the silicate scaffold, and so we would be left only with the kind of all-carbon-based life with which we are familiar. He admits: “It’s a crazy idea, but as is sometimes said, it may be just crazy enough to be true” (p. 240). But so can little green men on Mars. Turner, like Cairns-Smith, was driven to this ‘crazy idea’ simply because all other chemical evolutionary scenarios are even more chemically preposterous.

Turner does not address a fundamental question. If clay crystals themselves naturally become the objects of natural selection according to their catalytic abilities, then why aren’t our soils readily dominated by clay crystals that have fantastic catalytic capabilities?

### ‘Laboratory-made life’, if anything, supports special creation, not evolution

Although a committed evolutionist, Turner echoes creationists as he discusses the imagined as well as actual significance of Synthia, the first ‘synthetic organism’. He quips:

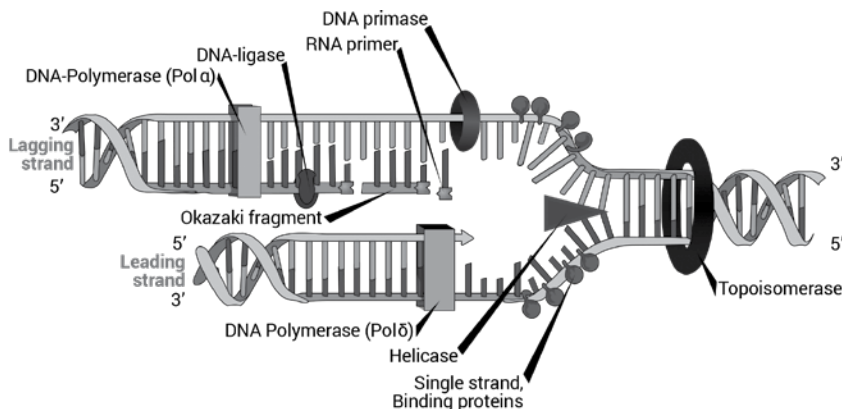
“The logic is familiar: if scientists can make life in the laboratory, this must prove that life could have originated from just the right chemistry, thereby proving that life needn’t come from the hand of God. In our modern secular culture, this has sometimes emboldened the nonbeliever to smite the creationist, and with unseemly glee. The biblical injunction to be mindful of the plank in one’s own eye (Matt. 7:3–5) is germane here, for Synthia presents an uncomfortable paradox for our atheist friends to contemplate. We might call it the ‘hands-of-the-scientist-god’ paradox. Synthia carried a price tag of about \$40 million. This money supported the numerous scientists, managers, and technicians involved, along with the highly sophisticated machinery and organizational infrastructure they needed to do their work. In short, Synthia was the collective product of the intelligence, foresight, and drive of

everyone who worked to bring her into being. *The paradox is that none of this even slightly undermines the creationist argument for the origin of life; it strengthens it [emphasis added]*” (p. 227).

As if to rub-it-in to the evolutionist scoffer, Turner continues: “Actual life did not need the JCVI [J. Craig Venter Institute] to come into being, after all, nor any of its scientists, not any of its sophisticated machines, nor any of its already-existing microbial helpers: it came about entirely on its own. How did *that* happen? If Craig Venter needed a platoon of the smartest people in the world to cobble together a poor imitation of life, just imagine the intelligent force that had to have brought the original into being! [emphasis in original]” (p. 227).

### Confessed irreducible complexity: DNA requires proteins, and proteins require DNA

Turner comments: “Metabolism, to be more than mere chemistry, must be highly ordered, reliable, and reproducible. Bringing this orderliness reliably into being requires a high degree of specification, which must somehow be



**Figure 1.** Accidental differences in the DNA molecules are supposed to cause evolutionary differentiation. But how did DNA originate in the first place? And which came first, the DNA that specifies protein sequence, or the protein sequence that is necessary to synthesize the DNA?

inherent in any presumptive living system. Currently we think this specification inheres in replicators, in specific sequence codes of nucleotides in DNA that specify sequences of amino acids in proteins. So far, so good, but when we ask from where the replicators themselves come, things begin to loop around on themselves. The replicability that underlies DNA's status as a repository of hereditary memory depends upon a host of metabolic processes specified by particular protein catalysts. Those protein catalysts would not exist, of course, without the replicable hereditary memory ... . The dilemma is obvious: each of the two necessary attributes of current life—heredity and metabolism—must exist for the other to exist. It is impossible (deluded, actually) to imagine such an intertwined system coming together all at once, with no intelligence guiding it. Yet if we are to believe that original life was anything like current life, we must believe they somehow did precisely that. To use a loaded phrase, present life seems to be ‘irreducibly complex’” (pp. 229–230; see figure 1).

### **Evolutionistic hostility to any hint of teleology**

Conventional evolutionistic thinking is not merely hostile to God: It is averse to *any* idea that deviates from strict materialism and chance. Turner makes this very clear: “It is a different story altogether when it comes to the problem of evolutionary adaptation. Speak of purpose and desire for evolutionary adaptation and you’ll quickly be lumped in with the God-botherers and other intellectually malodorous tribes” (p. 71).

The author adds: “Modern evolutionism rejects this solution, not because it has been disproved,

but because it is philosophically inconvenient” (p. 72).

### **Litigation and thought control: evolutionistic near-hysteria (the author’s term) about Intelligent Design (ID)**

Turner continues to take his fellow evolutionists to task, in no uncertain terms, as he comments:

“Exhibit A on this score is the near-hysteria that recently gripped evolutionists worldwide over Intelligent Design theory (IDT). Looked at objectively, IDT is a rather harmless and benign resurgence of Neoplatonism. Yet it was commonly represented in the scientific ‘community’ as something akin to the Golden Horde storming the Gates of Vienna, with all the illiberal responses one expects in a community that perceives itself under siege. The controversy was more or less suppressed with a federal judge’s 2005 ruling in *Kitzmiller v. Dover* that IDT is not science and therefore was proscribed from being taught in science classrooms. The irony of ‘academic freedom’ seeking protection behind a federal judge defining what science is was lost in the victorious celebrations that followed the ruling” (p. 262).

There are further implications to all of this. Many people, including well-meaning Christians, have suggested that means other than persuasion (e.g. litigation) should not be attempted to try to ‘force’ creationism or ID into the classroom. Ironically, as Turner shows above, this consideration works both ways. Evolutionists have certainly been using means other than persuasion (e.g. litigation) to define-away ID as ‘unscientific’ and thereby to censor its presence in the classroom. (In the USA, the so-called American Civil Liberties Union watches, like a hawk, any hint of Christian expression in the public

school system, and instantly threatens litigation.)

### **Natural selection is a tautology**

Many different authors have identified ‘natural selection’ as a tautology. It is an empty concept that effectively speaks of ‘the survival of the survivors’. In addition, ‘natural selection’, at least in the Darwinian sense, confuses the ‘survival of the fittest’ (an obvious truism) with the *arrival* of the fittest (a speculative evolutionary inference).

Here is how Turner analyzes it:

“The problem: our current conception of this core evolutionary idea is essentially meaningless. What is adaptation? The product of natural selection! What is natural selection? The outcome of adaptation ... the conclusion is a restatement of the premise, for example, ‘it is what it is’” (p. 8).

### **The concept of exaptation is a multiplied form of evolutionary tautology**

The author discusses various evolutionary speculations on how avian flight is supposed to have evolved. According to one of them, feathers originally evolved so that the bird would have better heat balance. At some point, evolutionary processes co-opted the feathers for flight. According to some other ideas, feathers originally appeared in order to make the bird seem larger or more formidable.

Turner points out the fatal problem with this kind of thinking:

“If you think that this all sounds like special pleading and scenario spinning, you would be correct. For one thing, the concept of exaptation suffers from the same tautology that afflicts modern Darwinism. Where evolutionary adaptation is selection of genes that promote adaptation,

exaptation is an adaptation that leads to another adaptation—it’s the same logical fallacy, multiplied” (p. 288).

### **The giraffe's long neck: Darwin to the rescue?**

The author suggests that textbook orthodoxy is wrong, in which Lamarck was some kind of a dunce who believed that giraffes got long necks by stretching them for many generations, and Darwin was the brilliant scientist who figured out differential survival: that giraffes have long necks because short-necked giraffes could not compete, and so became extinct. Turner quips:

“The familiar example of the giraffe just-so story should look familiar because it can be found in nearly every biology textbook written since. Usually, the giraffe story is filed under Lamarckism, but in all fairness it should be filed under Darwinism, for Darwin’s theory of pangenesis was a Lamarckian scheme for the heritability of acquired characteristics across generations” (p. 94).

### **Kin selection and inclusive fitness**

According to conventional evolutionary theories today, genes are selfish. The behaviours of living things are therefore driven to perpetuate the bearer’s genes. That is why living things strive to survive, including at the expense of others. But how to account for altruistic behaviour in nature? The conventional explanation is that it is the gene that is selfish, and the ultimate object of natural selection, and not necessarily the individual. For instance, the worker bee sacrifices her own life by stinging an actual or potential intruder. However, according to conventional evolutionary explanation, this altruism

is only apparent, because, in doing so, the worker’s self-sacrifice indirectly enhances the survivorship of her own genes by enhancing the survivorship of the queen, which, after all, bears the same genes. Thus, the ‘altruistic’ character of the worker bee’s suicidal behaviour is illusory. As Turner puts it, “altruism was in fact a surreptitious form of genetic selfishness ...” (p. 196).

This textbook orthodoxy all sounds convincing, until examined closely. Turner shows that the queen bee is quite promiscuous, including with drones of other colonies, and that other social insects (e.g. termites) also have quite fluid mating and social systems (e.g. p. 205). Consequently, the colony and its specific genes can no more be the unit of natural selection than the individual and its genes. In other words, when the worker bee sacrifices herself for the benefit of the queen or colony, there is no guarantee that she is enhancing the survivorship of her own genes by enhancing the survivorship of the queen’s genes, as the latter may be different.

### **The concept of ecological niche was pre-Darwinian, and was belatedly co-opted by evolutionists**

J. Scott Turner comments:

“The ecological niche is a venerable idea that predates the neo-Darwinian synthesis ... . As it was originally conceived, the niche concept was reminiscent of William Paley’s well-ordered creation—every species in its place, together producing a harmoniously functioning ecosystem” (p. 267).

And then evolutionary theory ‘hijacked’ the ecological niche. Turner continues:

“Like nearly everything else biological in the early twentieth century, the neo-Darwinian revolution dramatically transformed

this idea of the well-ordered niche. No longer was the niche an expression of a creature’s proper place in nature: it became a site of contention and competition, tied up in nature’s tragic drama, red in tooth and claw” (p. 267).

Today, evolutionists often say, with no small amount of intellectual arrogance, that “nothing in biology makes sense except in the light of evolution” and that creationism and ID have nothing to offer in terms of the advancement of our understanding of nature. The facts are exactly the opposite. Not only have many modern biological concepts (to which we can add the ecological niche to the list) originated before and without Darwinism, but had originally, at least in part, been creationist concepts.

### **Conclusions**

There is a growing body of evolutionary scientists who, without endorsing either creationism or Intelligent Design, recognize that their ideas have at least some validity, and that standard evolutionary theory is fundamentally defective. It is high time that these well-aimed criticisms of standard evolutionary theory be recognized and respected in academia.