

Flying Shingle, 2007 – a series of letters and responses on the topic of “Intelligent Design”, none too deeply thought through on my part, but offered in the spirit of having fun with the debating game.

Flying Shingle, February 2007: Evolution—a theory...not a fact, 35(3/24), p.3

LETTER to the editor from Marc Alfred, Gabriola Island

Madam—

At the outset, let me state that I do not believe in “creationism” and I have no trouble agreeing that it is “wrong” as claimed by Steve Jones; but I do not agree that evolution is “right”. Note that Jones is arguing for scientism, not science. It is not contrary to good scientific practice to point out the failures and inadequacies of a theory; and note that evolution is a theory, not a fact.

Evolutionists will often point to some, local adaptation—the pepper-wing moths in Britain come to mind—and then claim that this proves that evolution by natural selection is true; or the fossil record is paraded as evidence of the “fact” of evolution. There is no doubt that populations change under changing environmental demands, but this is nowhere near being a sufficient demonstration of the theory. Evolution claims to account for all the organic diversity on earth and to explain every aspect of variability.

However: (1) it fails to give any credible account of the taxonomic categories superior to species, i.e. macroevolutions; (2) for more than 150 years, it has failed to account for the vertebrate eye, a problem which kept Darwin up at nights; (3) it fails to account for the bacterial flagellum; (4) it fails to account for protein structure; (5) it fails to explain how humans managed to acquire a brain suitable for solving non-linear differential equations about 100,000 years before it was needed for that... Typically “just so” stories are invented and claimed to be sufficient explanations. They are nothing of the sort.

Intelligent design does account for all these and more. Because it is based on inferential logic it is easily dismissed by those that see classical 19th century physics as the model of science. Science, they argue, attempts to explain events in terms of causes; but intelligent design only searches for the most likely cause of an event. This latter, incidentally, is a perfectly acceptable procedure in many situations, such as forensics. Intelligent design recognizes three broad categories of causes: natural, chance, and intelligent.

In order for an event even to be considered for intelligent causation it must have a probability of less than 10^{-150} . But a very small probability is not enough to justify the claim of evidence of intelligence. I won't go into the remainder here. The one word rejoinder to those that claim that it is all speculative is [SETI](#). There is not one scrap of evidence to justify the millions poured into that project. (By the way, remember that transmission of the first 100 prime numbers was taken as sufficient evidence of intelligence by Carl Sagen via Jody Foster.) Here I could just as well have taken “multiverse” or quantum theory of matter.

Evolution by natural selection is unquestionably one of the great interpretations of observations ever achieved; however, it is limited, so it is not exclusive of intelligent design. Evolution and intelligent design should be viewed as complementary, not antagonistic.

This, however, requires a bit of humility on the part of the true believers on both sides; at the moment the animosity is such that both sides predict the end of civilization if their interpretation is not accepted. Of course, should it be accepted that something has been intelligently designed, the next question would have to do with the nature of the designer. That is left for philosophy and theology, not science. The work of intelligent design is finished with the demonstration that something is the product of intelligent. It has no religious commitment.

Flying Shingle, February 2007: You never know..., 35(4/24), p.3

LETTER to the editor from Nick Doe, Gabriola Island

Dear editor

It's a fact, it's a theory

If I understand the intelligent-design theory correctly, doing scientific research is like trying to solve a giant crossword puzzle, except that we're given no clues to some of the words. In the last *SHINGLE*, Marc Alfred gave us his current list of inherent unsolvables (dark matters so to speak). I say "current" because presumably the list changes as science progresses. I think it would be a shame if he were right. I doubt that he is though. Surely the source of the intelligent design wouldn't be such a spoil-sport. "God did it" is such a pathetic response to the puzzles nature poses compared to the intriguing and ingenious explanations that researchers come up with. "GDI" also simply gets us into the unanswerable, needless complexities and convolutions of "but why?" and "how?" Ontologically-minded people have worked on that for centuries and as far as I'm aware haven't been making a whole lot of progress lately. Metaphysical "facts" I guess don't evolve like life and good theories do, unless of course they're dynamic facts, and thus a product of our own creation.

To any young scientist looking for an area of research, I would say, go for anything on the list the intelligent-design theorists provide. Try Googling [TTSS](#) for starters--how DO bacteria wag their tails? And who on earth is so knowing that they can say in advance whether or not SETI will find anything? Have fun. Open your eyes. You could succeed. After all, what would be the purpose of having a few absolute intractables other than to prove the existence of the designer; and that, given the absence of evidence, seems highly unlikely. Even if it were a reality, proving it scientifically would be a huge triumph for human, not just designer intelligence. You never know, perhaps the process might also help ethereal designers who, like us, ponder the question of their own existence.

Flying Shingle, March 2007: Nick doesn't get it!, 35(5/24), p.3

LETTER to the editor from Marc Alfred, Gabriola Island

Madam—

Nick Doe has not understood intelligent-design theory. It is not about crossword puzzles even metaphorically. It is about locating evidence of intelligence in the design of natural phenomena. It assuredly is not about throwing up one's hands while crying, "god (or God) did it". He must also be a believer in Carl Sagan's infamous quip in the context of SETI: the absence of evidence is not evidence of absence (*sic*). Historically, science has made great progress by explaining "anomalies" and there is no reason to believe that things are different today.

However, there comes a time when any scientist, if he wishes to remain outside the rubber room in the laughing academy, must pack it in and admit that his explanation doesn't work. The willingness to recognize a dead-end is a necessary component of science. To pursue a line of reasoning in the absence of supporting evidence is to give primacy ideology; it is belief, pure and simple. Recall St. Anselm's observation "I believe in order to understand". This is fundamentally contrary to the public face of the scientific ethos, but not to that which actually motivates scientific research; belief is a necessary beginning point.

Some part of Doe's problem may be that the existence of an intelligent agency cannot be understood in the classical sense; it can only be accepted or rejected on other grounds. In this regard it is similar to the problem of explaining something which is "random". Classical physicists claim that randomness is only apparent, an indicator of the failure of measuring instruments. Quantum physics, on the other hand, assumes that randomness is part of the fabric of the universe. One of life's little pleasures is listening to someone try to "explain" a random event; they do wax metaphysical, mystical. This is a class of phenomena that has no cause. In the case at hand an intelligent, not a materialistic, cause is assumed; this is logically different (though superficially similar) from a random "cause".

I do not object to encouraging young scientists to attempt to produce a materialistic explanation for something that appears to present evidence of intelligence in its design. (For a more extensive list of phenomena that seem to defy an evolutionary account refer to Michael Behe's "Darwin's Black Box". The list is not mine but his and it has not changed at all—there has been no scientific "progress".)

But I refuse to pay for their self indulgence because I am confident—proof is impossible—that they will flail. A few years ago the Veritas Foundation [[Forum](#)] was trying to raise money (they were after \$1 million) to be used as prize money for anyone who could produce a materialistic argument, with convincing empirical data, to explain any of the example Behe described. The young scientists should be directed to that, or other, private funding agencies and should not seek support from public funds. So far no one has put in a claim so the prize should be growing with inflation.

The issue with regard to the bacterial "tail" is not how or why they wag it. That is known and not under dispute. The assertion is that evolutionary theory cannot account for it and that it has all the hallmarks of having been intelligently designed.

Flying Shingle, April 2007: Nick "doesn't want it"! 35(7/24), p.3

LETTER to the editor from Nick Doe, Gabriola Island

Dear editor

Who needs ID?

I've lived on Gabriola long enough to know that you, dear madam editor, are wont to supply your own headings to readers' letters. So, that gleeful letter-banner, "Nick doesn't get it", that wasn't part of Marc Alfred's contribution to our erudite discussion on the Theory of Intelligent Design (ID) now was it. "Close by the sturdy batsman, the ball unheeded sped; 'That ain't my style,' said Casey; 'Strike one,' the umpire said." So to speak. However, I will admit your choice has merit. It may be true that Nick doesn't get it. But, it certainly is true that Nick doesn't want it. I'm "confident" that the Vancouver Canucks aren't going to win the Stanley Cup this year, just as Marc appears to be confident that SETI won't find anything, but unlike Marc, my confidence is not going to stop me enjoying the games and checking the results to see if I'm right. And what's more, I can't imagine that the opinion of someone like me, who's never played hockey, is causing any concern in their dressing room. The hard reality is that not one of us has insider information on where we are at and why.

I've spent a lot of my working life in research laboratories, and I continue in my retirement, on the beach on rainy days when I'm tired of the smell of rubber, to ponder things like nonlocality, the Copenhagen interpretation of quantum reality and the views of its critics, particularly those of Roger Penrose who holds out a faint hope that the involvement of gravity may provide a more "common-sense" ontology. In my time, I have painstakingly read many scientific papers, and can't think of a single one to which the idea of ID would have been more relevant than not being poked in the eye with a stick. When the time comes, there's about as much chance that I'll be giving ID as the cause of the phenomena I'm currently researching here on the Island as there is that I'll be adding water to my beer. Mull "Darwin's Black Box" if you will (it is indeed a good read), but try also "the Plausibility of Life" and of course Google Behe in Wikipedia.

My non-acceptance of ID lies not just in the theory itself, but in its premise that we must have an explanation for everything right now, and given that, because introducing "a spiritual plane" can provide explanations where other theories have none, it is better to make that introduction than not. But why do we have to have an explanation for everything right now? Isn't it possible that we need better insights, more facts, more imagination, that we lack requisite mathematical skills? What is wrong with being humble and saying, I don't know?

Isn't it possible that accepting cooked-up explanations by people who advocate coping-out of scientific research actually is worse than having no explanation at all? Of course it is. And it isn't as though we're stuck forever being ignorant; the claim that science has made no "progress" in addressing anomalies may fall short of being a "breathtaking inanity" (Marc will get the allusion) but it is nevertheless not true.

The scientific method is successful because it provides a way of objectively quantifying which of competing theories is "best". It does this, as we all know, by requiring theories to make testable predictions. And even when that's hard to do, when the "facts" the theories seek to explain are historical facts for example, there may be ways around it. It's early days yet, but research on the

evolution of computer code in an environment where “natural selection” is modelled might alone eventually show that what we think may have happened in the past is indeed within the realm of reasonable possibility. Always assuming of course that an Intelligent Designer doesn’t hack the code.

But some theories, like the competitors to Darwin’s Theory of Evolution, are far poorer theories simply because they do a far poorer job of explaining the evidence. Michael Behe may be able to kick a ball, but that doesn’t justify claims that he’s anywhere close to winning the game. Intelligent Design theorists should give up pretending they’re scientists, particularly if they like Marc don’t even like science, and should try the door marked philosophy instead.

Flying Shingle, May 2007: Several brief points, 35(8/24), p.7

LETTER to the editor from Marc Alfred, Gabriola Island

Several brief points in reply to Nick Doe. First, I spent more than 40 years doing science, and I do not like it—really. Second, philosophy is a necessary component of all science, without which it is little more than stamp collecting. Third, science, by definition explains and more often advances by explaining anomalies; if it does not explain, it ain’t science. Fourth, there is no mechanism anywhere for selecting the “best” among competing theories. (Bayes’ theorem in statistics will controversially allow a tentative decision about which alternative *hypothesis* best accounts for the data). Currently and historically the “best” theory is often decided by a political elite and it remains dominant until such time as its cumulative failures become obvious to all and there is a viable alternative; if there is no alternative the “received” theory retains its dominance even when clearly inadequate.

Only in the weakest possible understanding of the term “explain” can the Darwinian theory be said to explain. With that flabby understanding, however, it will “account” for everything in the organic world and because of this, and the fact that it has never made a prediction about anything, there is no hope of testing it. So it becomes an unlimited source of “just-so” stories: whatever the event, it is due to mutation and natural selection. QED. (?) Due to the PR campaign—Huxley, Dobzhansky, Mayr, Dawkins—Darwin’s theory has much more prestige than it commands intellectually. (It is worth pointing out that the folks studying dinosaurs have known this for some time and abandoned a Darwinian approach in favor of Willi Hennig’s cladistics.)

And finally, intelligent design (ID) does not claim to be a science; it is philosophy. One of its claims is that there are at least three categories of phenomena: (1) things that obey natural law, such as planetary motion, (2) things that are random such as radioactive decay and (maybe) mutation, and (3) things that the mathematician Emil Borel called impossible due to their complexity and improbability that give off the odor of having been designed. Everyday science can proceed to do the easy stuff filling in the gaps without interruption or any fear of having to

include some new mysterious mechanism at work. (So unless you wish to address a topic in category 3, your beer is safe Nick.) A major activity of everyday science is the demonstration that something that appears random is in fact due to natural law. Most of the proponents of ID are reputable scientists engaged in exactly this activity; they do not claim that august status because of their acceptance of ID. ID claims to be able to recognize intelligence in design and provides a logically coherent protocol for making this determination; it also claims that there is evidence of intelligence in many natural phenomena. (It must be very painful for Nick to remember that Einstein expressed belief in Spinoza's god as the source of natural law.) So here is the challenge to mainstream science, and to Nick: produce a naturalistic explanation, along with supporting data, for anything in category 3, such as the origin of life or any of Bee's examples. All (*sic*) you need to do is show something for which intelligence is claimed is actually a simple mechanistic consequence of ...whatever. Do that and I will shut-up.

Flying Shingle, June 2007: Creative evolution: The discussion continues, 35/11, p.4

LETTER to the editor from Nick Doe, Gabriola Island

Dear editor

Creative evolution

Rather than respond directly to Marc Alfred's last letter on Intelligent Design (ID) as a possible explanation for the origin of life, let me offer a digression. I do this, not out of lack of respect for Marc, for he argues well, but with an eye to the impatience of the reader. To "shut him up" on his terms will need the help of molecular evolutionary biologists as the following quote shows. It is from the recent book, "The Plausibility of Life--Resolving Darwin's Dilemma". It goes like this: "The novelty and complexity of the [prokaryotic] cell is so far beyond anything inanimate in the world of today that we are left baffled by how [it originated]. Unlike the later revolutions, no prior core process and components were available for modification to make the first cell, or at least none has survived. Lacking any example of an organism that might have diverged before the common ancestor of bacteria, we can do little more than speculate." Good stuff, eh Marc! What an opening, not only for junk science, but junk history too. Now my piece.

Let's suppose that the ID hypothesis is correct. Then one job to be done is to revise all the biochemistry books and identify those chemicals created by "natural" processes, and those created by an IDer. Students will also have to go to the Internet from time-to-time for recent updates. Currently, astrochemists studying clouds of dust in interstellar space are discovering new "organic" chemicals, almost on a daily basis. I see that the latest they've detected, in Sagittarius B2, is glycolaldehyde. But that's a simple molecule, a long way from being a protein, so for most scientists, the more pressing question would be "who is, or was, the designer?"

Cue the ID crowd. They have the answer. It was God. The Big Guy himself, the Creator of the Universe. But, are we sure that's right? We don't have much evidence for it, and isn't it human nature to always assume that we humans are the most important thing there ever was? The Earth

is at the centre of the Solar System; the Solar System is at the centre of the Milky Way; the Milky Way is at the centre of the Universe; and so on. All wrong. So, based on this poor record, isn't it possible that Our Designer was just only a rather junior designer among many? After all, given the vastity of the Universe, keeping tabs on everything would be super-Herculean, and designing a bacterium's tail sounds pretty minor to me. It is only logical that there should be a multitude of designers, all toiling away in their little multidimensional corners of the Universe, with only occasional contact with the Big Guy for further instructions and guidance. This shouldn't be a shock either to the theologians among us. If it is acceptable to populate our world with demons, angels, and other supernatural beings, why not Intelligent Designer geeks? Some designers are possibly lazy, not very good, add too many features, or are obsessed with what their creations do with their genitalia, but I'm sure the philosophers can give us some help with that.

Here's another thought. Very soon now, we will be able to create "life" for ourselves, either by manipulating DNA, or by creating computer programs whose complexity rivals that of a living thing. I read somewhere that the essential difference between us humans and our progenitors is the gene controlling the number of cells in our brains. In humans, that particular gene says the number should be at least three times higher than did the gene that every other hominid had. But we could presumably change that to, say, five times higher, thereby creating an even more intelligent species. It shouldn't be too difficult, and yes I know, some will say using pre-created biochemicals is cheating, but what the heck if it saves a million years or two.

It isn't clear how complex a computer program has to be before it becomes conscious, but as Star Trek fans know, it's only a matter of time before we find out. It'll be interesting to see if it ever becomes illegal to switch a computer off, on moral grounds, or if priests will be lining up to baptize them. Software evolves, much as biological systems do. Programs easily reproduce; they can be developed (mutated); they exist in an environment that rewards success (more utility, more sales, more money for development); and they are even structured like DNA with core processes (subroutines and functions), some of which survive many mutations. Anyone want to bet that there aren't machine code fragments of DOS in Window's Vista, just as there are fragments of E. coli bacterial DNA in mine?

Once we've mastered the art of building computer programs that are smarter than us, we can hand over to them the task of designing even more intelligent entities. A hierarchy will develop with us humans continually being moved down the list, clinging to our souls nevertheless.

Going back now to our previous thought on celestial hierarchies, let's join the dots? Here's my theory. Yes, there may be Intelligent Design at work in the Universe, but there's a catch. If there is, then the Intelligent Designers themselves have evolved. If we warp time a bit with some wormholes, we might even be able to say that Intelligent Designers ultimately designed themselves in a great circular process we call evolution.

So, what do you know, did I just prove that everybody is just half right? Or could it be that the premise is wrong? That there are no Intelligent Designers within our Universe; that like the

Universe itself, we've never been where we're going; and that like the Universe itself, we can never go back to where we've been before? *Courage mes braves!* Let's see the World as it really is, ourselves as we really are, and let's go find out.

Only half-jokingly yours

Flying Shingle, July 2007: 35/12 (2nd of 2), p.3

LETTER to the editor from Marc Alfred, Gabriola Island

Alfred vs Doe: Intelligent Design vs Evolution

Madam—

Once more I am unsure how to respond to Nick Doe. Since he invoked a team of demiurges in his fantasy, I feel somewhat free to do as he did and not reply directly but to reiterate points made earlier and add a few new ones.

At the outset, the status of speculation needs to be cleared up a bit. All science begins as speculation. So speculation is not inherently wrong or improper. One thing that distinguishes science from other modes of knowing is that it does not end there. In science evidence is required either to support or refute speculation. About the egregious example of what happens when speculation is not constrained by evidence is string theory. For more than twenty years it has dominated astrophysics without one shred of supporting evidence and in spite of very cogent arguments that suggest that it cannot be tested. SETI is another. Simply on the strength of Carl Sagan's passionately held speculation, and in spite of a total lack of evidence, it continues to be a black hole for resources and a haven for those who believe that strength of belief creates reality. (Sagan, recall, made (in)famous the epigram that "the absence of evidence is not evidence of absence". If this is accepted, as it has been by many "scientists", then there is no hope for truth.)

Modern science has many holes. The origin of life and of biological information are classical examples; the physical constants (gravitational constant, ratio of electron to proton mass, ratio of electromagnetic force to gravitational force, velocity of light, etc.) have received intense attention for many years and so far defy explanation. The universe seems to be fine tuned in a way that could only be done by great intelligence. Proteins are an easy example of this intelligence. It is not known how many there are but it must be in the millions—and each one does something of importance to the organism hosting it. Very crudely the manufacture of proteins involves twenty amino acids, requires that they have a peptide bond, and all must have an "L" twist. This means that a small protein only 100 amino acids long—most are much longer—would be produced by random collision one time in $(20^{1/2})^{100} \approx (20 \times 1/2 \times 1/2)^{100} \approx 10^{-70}$ collisions. This produces a probability of about $(5 \times 10)^{-191} \approx 10^{-70}$. Since the protein must be functional it cannot have been built one amino acid at a time. (The mathematician Emile Borel asserted that anything with a probability less than 10^{-50} was "impossible". So here is something that clearly has a function—the hallmark of intelligence—and could not have

been formed by naturalistic means. I claim, inferentially, that proteins are evidence of intelligent design.

A basic question is whether the well known methods employed by scientists are capable of filling in all the holes. Unquestioning faith is required for a “yes” answer—the history of science does not support it. If one answers “no” or “I don’t know” there is room for speculation, which inevitably in the early stages attracts the pejorative label “junk science”.

And finally, if ID should be accepted, there would be rejoicing in the publishing industry. Except for a small segment of the biological sciences all that would be required is the deletion of the few sentences, at most a paragraph dealing with basic issues. Publishers could do that and flog the same text as a new edition—a well established ploy in textbook publishing. Authors would, of course, be happy to indulge. All the rest of the text, 99% or more, would remain untouched and unaffected—but this year’s students could not buy used copies from last year’s students.

THE END