Programming of Life Prerequisites

Physical Constants and Properties Requirements

By: Donald E. Johnson

Introduction

- A cell's hardware and software are experimentally verified realities, as stated by Craig Venter, "It certainly changed my views of definitions of life and how life works ... Life is basically the result of an information process, a software process. Our genetic code is our software" [Yen 1 0] [Donald E. Johnson: Programming of Life Prerequisites (Physical Constants and Properties Requirements), Big Mac Publishers 2011, p v.]
2 Mass and Energy: Source and Fine-Tuning

- "Besides the absence of any compelling experimental evidence for M-theory, there is another difficulty- its predictions are far from unique. There are $10^9$ different ways to curl up the extra seven dimensions and hide them. and how they curl up determines the fundamental constants and what we four dimensional creatures see as the laws of physics. So even if M-theory is the only theory of everything available, there remain $10^9$ possibilities for the laws of physics we observe. Thus, say Hawking and Mlodinow, there is no miracle - inflation plus M-theory equals multiverse. Our special Universe is a selection effect: all possibilities have been tried and we find ourselves in the only kind of inflationary patch that can support our existence. .. Hawking and Mlodinow argue that negative gravitational potential energies allow something to arise from nothing - but that still begs the question of why there is space, time and M-theory at all" [Tur 10]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p9, 10.]

3 Chemicals of Life

- "Water's life-giving properties exist on a knife-edge. It turns out that life as we know it relies on a fortuitous, but incredibly delicate, balance of quantum forces. Water is one of the planet's weirdest liquids, and many of its most bizarre features make it life-giving" [GrO 11]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p14.]

4 Going Where Data Lead

- Paul Davis (professor of theoretical physics) writes: "The really amazing thing is not that life on Earth is balanced on a knife-edge, but that the entire universe is balanced on a knife-edge, and would be total chaos if any of the natural 'constants' were off even slightly. .. even if you dismiss man as a chance happening, the fact remains that the universe seems unreasonably suited to the existence of life --almost contrived-- you might say a 'put-up job'" [DavWiki]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p23.]
- "Biologists must be encouraged to think about the weaknesses of the interpretations and extrapolations that theoreticians put forward or lay down as established truths. The deceit is sometimes unconscious, but not always,
since some people, owing to their sectarianism, purposely overlook reality and refuse to acknowledge the inadequacies and the falsity of their beliefs" [Gra77p8]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p23.]

- Hoyle wrote, "It is ironic that the scientific facts throw Darwin out, but leave William Paley, a figure of fun to the scientific world for more than a century, still in the tournament with a chance of being the ultimate winner ... Indeed, such a theory is so obvious that one wonders why it is not widely accepted as being self-evident. The reasons are psychological rather than scientific" [Hoy81Ep130]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p23, 24.]

- "A Chinese paleontologist lectures around the world saying that recent fossil finds in his country are inconsistent with the Darwinian theory of evolution ... When this conclusion upsets American scientists, he wryly comments: 'In China we can criticize Darwin but not the government. In America you can criticize the government but not Darwin. ... one reason the science educators panic at the first sign of public rebellion is that they fear exposure of the implicit religious content in what they are teaching" [Joh99]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p24.]

- Presidential Medal of Science winner Lynn Margulis notes, "as far as 'survival of the fittest' goes, ... [natural selection is] neither the source of heritable novelty nor the entire evolutionary process ... [making] Darwinism 'dead,' since there's no adequate evidence in the literature that random mutations result in new species ... Natural selection is the failure to reach the potential, the maximum number of offspring that, in principle, can be produced by members of the specific species in question" [Maz10p257&267]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p24.]

6 Epilog

- Dawkins writes: "The more statistically improbable a thing is, the less can we believe that it just happened by blind chance. Superficially the obvious alternative to chance is an intelligent Designer. But Charles Darwin showed
how it is possible for blind physical forces to mimic the effects of conscious design, and, by operating as a cumulative filter of chance variations, to lead eventually to organized and adaptive complexity, to mosquitoes and mammoths, to humans and therefore, indirectly, to books and computers" [Daw82]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p27.]

- "What are the limits for what can claim to be science? One proposal is methodological naturalism (MN), which requires that scientific theories can postulate only natural causes. What are the limits for what MN-Science can claim to explain? If we decide to accept methodological naturalism, a second limit is logically necessary: If an event really does involve a non-natural cause, any explanation of the event by MN-Science (in terms of only natural causes) will be incomplete or incorrect" [Rus Web]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p27, 28.]

- "Limiting science to a predetermined set of acceptable explanations naturally begs the question, 'What if there is no natural explanation?' ... Science would forever miss it and would continue to squander intellectual and financial capital on finding naturalistic answers that do not exist. Scientific progress depends heavily upon discovering blind alleys and rejecting failed theories. This is simply the way that science works" [Bow07]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p28.]

**Appendix A: Mass/Energy Origin Scenarios**

- "To create a new universe would require a machine only slightly more powerful than the LHC [Large Hadron Collider]. .. The big question is whether that has already happened- is our universe a designer universe? By this, I do not mean a God figure, 0 0 . there is still scope for an intelligent designer of universes as a whole ... {four universe was made by a technologically advanced civilisation in another part of the multiverse, the designer may have been responsible for the Big Bang, but nothing more. 0 0 . intelligent designers create enough [> 1 0500] universes suitable for evolution, which bud off their own universes... It therefore becomes overwhelmingly likely that any given universe, our own included, would be designed rather than 'natural'" [Gri I OJ. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p35.]}
• "Alternative universes, things we can't see because they are beyond our horizons, are in principle unfalsifiable and therefore metaphysical" [Gef05]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p37.]

• "Because our Universe is, almost by definition, everything we can observe, there are no apparent mea- surements that would confirm whether we exist within a cosmic landscape of multiple universes, or ours is the only one. And because we can't falsify the idea, ... it isn't science" [Bru06]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p37, 38.]

• "ff. . . the landscape turns out to be inconsistent . . . as things stand we will be in a very awkward position[,] without any explanations of nature's fine-tunings" [GefU5]. [Donald E. Johnson: *Programming of Life Prerequisites (Physical Constants and Properties Requirements)*, Big Mac Publishers 2011, p38.]

الحمد لله الذي بنعمته تنم الصالحات