

**Review: John Brockman (ed.), *Life: The Leading Edge of Evolutionary Biology, Genetics, Anthropology, and Environmental Science*, Harper Perennial, NY, 2016**

Pages: 367

**Confessions of Chemical Evolutionists**

This is books with a book, covering a gambit of topics under the religion of Evolution. Some sections are definitely more interesting than others, e.g., *Toxoplasma* is a fascinating parasite with behavioural associations for those around cats, some more educational on chemistry and biology, but most of all some are more revealing, that Chemical Evolutionists are really playing a game of smoke and mirrors with the public as to what 'life' they have created in the lab.

These have let there guard down in openly admitting the following:

1. DNA is precisely complex specified digital encoded information as four base. Richard Dawkins is crystal clear on this;
2. 'Species' is an entirely subjective concept (it's 'fuzzy');
3. They have utter contempt for Creation and the Bible;
4. They openly admit they are really doing Intelligent Design in Origins research, and are copying designed machines like the inscrutable ribosome.

The above are excellent apologetical reasons to study this book.

The saddening fact is these seemingly-intelligent minds know there are huge gaps in trying to create life, yet because of their *a priori* Materialism end of employing a Naturalism of the Gaps argument everywhere, rather than acknowledge the Creator's mind and power behind life, and that they are merely studying his work.

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## **Introduction** (pp. ix-xii)

### **I) Evolvability (Richard Dawkins)** (pp. 1-15)

Natural Selection (NS) is, “differential survival of coded information (CI) ... Whenever CI which has the power to make copies of itself – a “replicator” – comes into existence ... Originally, these replicating entities would have been floating free and just replicating in the primeval soup.” [p1,2]

“We are temporary survival machines.” [p3]

“Replicators ... DNA molecules ... reach out in to the world to influence their own probability of being passed on.” [p5]

“Fitness really is ... gene survival.” [p6]

“If you look at ... an earthworm or a centipede, it’s like a train, like a truck ... Before the origin of segmentation ... animals must have evolved as one single segment ... a major mutation ... segmentation was invented by some kind of macromutation ... “There’s normal evolution ... But every now and then ... there’s a major jump, a macromutation which opens up new floodgates.” [pp10,11]

### **II) Genomic Imprinting (David Haig)** (pp. 16-27)

The baby secretes 1g p.d. of lactogen into the mother: “think of the placental hormones as the equivalent of junk mail.” [p23]

### **III) A Full-Force Storm With Gale Winds Blowing (Robert Trivers)** (pp. 28-43)

The problem is “not having a model of how NS works on the genetic system itself”. [It doesn’t!]

### **IV) What Evolution Is (Ernst Mayr)** (pp. 44-59)

EDGE: “Is evolutionary biology the evolution of ideas, or is it a fact.”

MAYR: “That’s a very good question. Because of the historically entrenched resistance to the thought of evolution, documented by modern-day creationism, evolutionists have been forced into defending evolution and trying to prove that it is a fact and a theory ... As I say ... evolution is so clearly a fact ... you need to be committed to ... the supernatural if you are at all in disagreement ... It is a fact and we don’t need to prove it anymore.” [pp46-7]

EDGE: “how do you account for the fact that in this country, despite the effect of Darwinism on .. the scientific community, more and more ... are god-fearing and believe in ... six days of creation?”

MAYR: “You cannot give a polite answer to that question.” [p51]

“A gene is never visible to NS.” [p53]

#### **V) Genetics Plus Time (Steve Jones) (pp. 60-67)**

“Most religious people .. here and in the States ... They had two approaches ... One to say ... Genesis ... was a metaphor and every day represented millions of years. The other ... the six days were real, but they were the days in which God put into humankind ... a sort of postbiological soul, which didn’t need genes and didn’t need fossils.” [p61-2]

#### **VI) A United Biology (E. O. Wilson) (pp. 68-80)**

A superorganism is an aggregation of highly organised individuals into colonies.

It takes 100-200K proteins to form one cell.

Biology is primarily a descriptive science.

#### **VII) Is Life Analog or Digital? (Freeman Dyson) (pp. 81-87)**

According to transhumanist Hans Moravec, memories will be able to be downloaded from your brain into a computer, whose wiring system

substitutes for axons and synapses. If one's brain gets smashed in a car accident or develops Alzheimer's, he can restore the computer backup.

Si-based life is possible in a cold universe.

Fred Hoyle proposed Black Cloud life, where the dust grains of space held together by electromagnetism act as neurons.

“Life is ... a material system that can acquire, store, process, and use information to organise its activities.” [p82]

“The information in our genes is certainly digital, coded in the four-level alphabet of DNA.” [p83]

“We should upload ourselves to black clouds in space rather than download ourselves to silicon chips.”

In a digital system, the energy gap between discrete states is fixed as temperature goes to zero, and the system ceases to operate when temperature is much lower. However, in an analog system like the Black Cloud, this is not so.

### **VIII) Life: What a Concept! (pp. 88-188)**

“In the pre-Darwinian epoch ... genetic information was open source.” [p89]

“The garbage-bag model. The early cells were just little bags of some kind of cell membrane, which might have been oily ... inside you had a more-or-less random collection of organic molecules ... Stage two is when you have parasitic RNA ... and ... ATP [adenosine triphosphate] ... Perhaps one of these garbage bags happened to develop ATP by a random process ... Then RNA invented viruses .. stage three ... invention of the ribosome, which to me is the central mystery ... Stage four is ... speciation and sex ... [this] continued for 2 billion years without evolving fats.” [Freeman Dyson, p88-91]

“Evolving creatures ... showed punctuated equilibrium.” [p93]

VENTER: “What's your definition of 'species'? That's something I have great difficulty with.

DYSON: “Yes, it’s a problem. It’s supposed to be just a population that breeds within the population but not outside, but of course there are all sorts of exceptions.”

VENTER: “That ignores most of biology.”

DYSON: “Yes, so I don’t know what the real definition is.”

VENTER: “It’s a human definition.”

DYSON: “It is fuzzy.”

[p101]

Only 0.1% of microbial organisms will grow via lab techniques.

VENTER: “Species is a very vague term ... I think we may have had thousands of recent common ancestors.” [pp114,115]

*Haemophilus influenzae* has 1,800 genes.

Phi X 174 was a viral genome made in 1995 in minimum cellular life work.

DNA synthesis is degenerative ... the longer you make molecules, the more error.

VENTER: “None of us is talking about creating life from scratch, because that’s not what’s happening ... The lay press likes to talk about creating life from scratch. But while we can create and develop new species we’re not creating life ... we tried to make ribosomes ... but they don’t function ... But starting with an intact ribosome is cheating ... not building life from scratch ... right now all life derives from other living entities ... we’re just putting a new operating system into a living cell ...in synthetic biology, synthetic genomes, we’re doing selection. It’s just not *natural* selection anymore. It’s intelligently designed selection ... We have synthetic ribosomes ... We didn’t design them: we’re copying the design.” [pp123,145, 148]

LS9 could make 2M bp of DNA p.m.

Bacteria can be engineered to home in on tumours by expressing an invasive protein, then once inside the cells manufacture chemotherapy.

VENTER: “There’s a big assumption ... the mirror image of all these things will have the same activity.”

CHURCH: “A lot of companies now depend on pretty amazing changes in the structure ... though, they all have intelligent design somewhere in the process ... The ribosome ... the question is, How did that thing come to be? If I were to be an intelligent-design defender, that’s what I would focus on.” [140,142]

SHAPIRO: “A ribosome forming spontaneously has about the same probability as an eye forming spontaneously.” [p144]

While Mercury oozes out some He, it immediately escapes into space.

A intra-galactic panspermic event could take 1Ga; at comet speed this would be 1Ma (to cross the 20ly) in which radiation damage would be fatal. The maximum dose is set at 3M rads.

The P-bond is said to be the smoking gun for life.

Quantum mechanics is constantly injecting random bits of information into the universe.

Gravity-bound objects have negative specific heat.

The Halting Problem states no way exists to compute what will happen when you set a computation in motion, other than waiting to see the outcome.

SHAPIRO: “We may never be able to capture ... actual circumstances that led to the beginning of our life here on Earth, because environments may have been destroyed.” [p187]

## **IX) The Gene-Centric View: A Conversation (Richard Dawkins and Craig Venter) (pp. 189-212)**

DAWKINS: “Pick up a chromosome ... It is pure information. You could put it into a printed book ... send it over the Internet ... store it on a

magnetic disk for 1,000 years ... it will be possible to reconstruct whatever living organism is here now ... utterly undreamed of before the molecular information revolution ... genetics has become a branch of information technology. It is pure information. It's digital information ... precisely the kind that can be translated digit for digit, byte for byte ... that would have boggled the mind of Darwin." [p192]

VENTER: "Life is machinery ... a form of technology." [p201]

There are 1M organisms in a litre of ocean water.

VENTER: "The problem with molecular taxonomy. If you choose one gene out of 2,000 ... and try and classify on that, you come up with one answer. If you pick another gene, you get a different tree." [p206]

VENTER: "Taxonomy is something where people sort of fool themselves by justifying what they see with their visual acuity." [p206]

VENTER: "Once you have lateral transfer ... the tree concept of life goes away." [p206]

### **X) The Nature of Normal Human Variety (Armand Leroi) (pp. 190-226)**

FOP: fibrodysplasia ossificans progressiva. Wounds heal as bone.

Each man carries 300 mutations.

"We don't know what the differences are between white skin and black. ... what the genetic basis of that is." [pp222,223]

Red hair is caused by a mutation in MC1R gene [melanocortin receptor 1].

### **XI) Brains Plus Brawn (Daniel Lieberman) (pp. 227-249)**

The Titan Epimetheus gave out all his gifts to the animals but none to man.

Only 3% will take the stairs when an escalator is available.

### **X) Mapping the Neanderthal Genome (Svante Paabo) (pp. 250-263)**

**XI) On Biocomputation (pp. 264-298)**

**XII) Engineering Biology (Drew Endy) (pp. 299-316)**

**XIII) Eat Me Before I Eat You: A New For for Bad Bugs (Kary Mullis) (pp. 317-325)**

1% of the IS is devoted to the trisaccharide  $\alpha$ -Gal epitope.

**XIV) Duck Sex and Aesthetic Evolution (Richard Prum) (pp. 326-348)**

**XV) Toxo (Robert Sapolsky) (pp. 349-357)**

The protozoan parasite *Toxoplasma* reproduces in cat guts and comes out in faeces, where it is then eaten by rodents. It does this by making cat urine smell attractive to rats and so the cat can catch the rat!

*Toxo* migrates from gut to brain via the nervous system, and has a proclivity for the amygdala. There, it knows how to hijack the sexual-reward pathway via tyrosine hydroxylase, and enzyme for dopamine.

Men with *Toxo* become impulsive and are 3X more likely to die in a car accident.

It can be absorbed from soil, or uncooked food.

There is association between schizophrenia and mothers who had cats during pregnancy (“crazy cat lady”).

**XVIII) The Adjacent Possible (Stuart Kauffman) (pp. 358-367)**