

Fine-Tuned Nature of the Universe

- Physical constants for weak and strong nuclear forces, electromagnetic and gravitational forces, ratios of forces and electron/proton masses, and properties of neutrons are all critical, as are the expansion rate, mass, and density of the universe
- Earth's orbit, tilt, rotation, magnetic field, atmosphere, and composition are life-critical
- Concerning the constants of physics: **"The remarkable fact is that the values of these numbers seem to have been very finely adjusted to make possible the development of life."** Stephen Hawking, *A Brief History of Time*, 1988

Universe is "fine-tuned" to allow for life

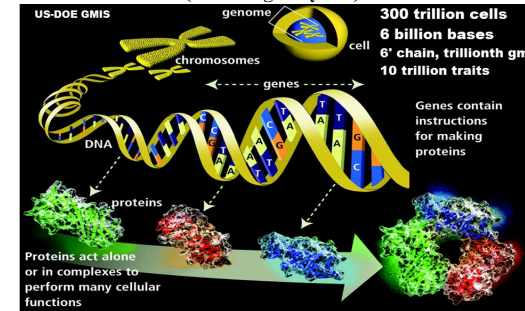
"An accuracy of one part in 10^{123} ...the precision needed to set the universe on its course." Penrose in *The Emperor's New Mind*, p.344

"If we nudge one of these constants just a few percent ... No carbon, no life. Not even any chemistry. No complexity at all." D. Deutsch, *The Anthropic Universe*, 2/18/06.

"There is for me powerful evidence that there is something going on behind it all... It seems as though somebody has fine-tuned nature's numbers to make the Universe.... The impression of design is overwhelming." Paul Davies, *The Cosmic Blueprint: New Discoveries in Nature's Creative Ability To Order the Universe*, 1988, p203

"He who fashioned and made the earth, He founded it; He did not create it to be empty, but formed it to be inhabited." (Ps. 45:10)

Simplified Genetic Code for Constructing Proteins (Including Enzymes)



Natural Science Probabilities of Life

- Law of Probability allows a maximum probability of forming-
 - a typical functional protein^a: 1 part in 10^{175}
 - the required enzymes for life^b: 1 part in $10^{40,000}$
 - a living, self-replicating cell^c: 1 in $10^{340,000,000}$
- ^aThaxton, Bradley, & Olsen, *The Mystery of Life's Origin*, 1992
^bFred Hoyle, *The Intelligent Universe* pp. 16-17, 1983
^cHarold Morowitz, *Energy Flow in Biology*, p. 99

Equivalent to winning each (once is 1 in 41,416,353) CA Superlotto for: ^a23 times, ^b50 years, ^c125 million years (Note: information science reduces probabilities to zero)

Life is unfathomably complex: "Functionally effective proteins have a vanishingly small chance of arising spontaneously in a prebiotic environment." Jimenez-Montano, "Applications of Hyper Genetic Code to Bioinformatics", *J. Biol. Sys.*, p5-20, 2004

Life's Computer Systems?

•Mechanical computer designed 1837

•"The machine code of the genes is uncannily computer-like. Apart from differences in jargon, the pages of a molecular biology journal might be interchanged with those of a computer engineering journal." Dawkins *River Out of Eden*, p17

•"The information content of a simple cell has been established as around 10^{12} bits, comparable to about a hundred million pages of the Encyclopaedia Britannica." Carl Sagan, "Life," 1997 EE

•"Life is basically the result of an information process, a software process. Our genetic code is our software." Venter 2010 Guardian interview



Information Systems in Life: Wonderfully made Ps 139:14

- **Genetic system is a preexisting operating system**
- **Specific genetic programs are applications**
Digital (base 4, ACGT) self-correcting encoded information
Information in 1 teaspoon of DNA: all people + all books
- **Native language uses encryption coding system**
- **Codes read by enzyme-based computers with own OS**
- **Enzyme's output is to computer-controlled factory**
- **Codes decrypted & output to translation computer**
- **Protein chain is the output of program execution**
- **There are multiple OSs, multiple programming languages, encoding/decoding hardware and software, specialized communications systems, error detection and correction mechanisms, specialized input/output channels for control and feedback, and variety of specialized "devices" to accomplish the tasks of life.**

**Algorithmic Prescriptive Information (PI) in Life
DNA gene sequences are real computer programs**

Chance & law can't explain decision nodes (choice)

PI is intrinsically formal, but implemented physically
Abel, "The Biosemiosis of Prescriptive Information," *Semiotica*:174-1, 2009, p1-19

A nucleotide (ACGT) may be in multiple prescriptions

"No rational scientific basis exists for blindly believing in a relentless uphill push by mere physicality toward formal algorithmic optimization" Abel & Trevors, "Self-Organization vs Self-Ordering events in Life-Origin Models," *Physics of Life Rev*:3, 2006, p211-228.

- "The Origin-of-Life Prize® ... will be awarded for proposing a highly plausible natural-process mechanism for the spontaneous rise of genetic instructions in nature sufficient to give rise to life."

Interesting Observations

"Human DNA is like a computer program but far, far more advanced than any software we've ever created." *Bill Gates, The Road Ahead, 1995, p.228.*

"Physics books may be complicated, but ... the objects and phenomena that a physics book describes are simpler than a single cell in the body of its author ... organized with intricate architecture and precision-engineering into a working machine capable of writing a book... Each nucleus ... contains a digitally coded database larger, in information content, than all thirty volumes of the Encyclopedia Britannica."

"Biology is the study of complicated things that give the appearance of having been designed for a purpose." *Dawkins, Climbing Mt Improbable*, Dawkins, *The Blind Watchmaker*, p. 1

"Although they claimed to be wise, they became fools and exchanged the glory of the immortal God for images made to look like man and birds and animals and reptiles." (Rom 1:22)

Biological Evolution: descent with modification

- **Microevolution: small-scale genetic changes** (proven observable fact accepted by all scientists)
- **Macroevolution: descent from common ancestor**
- "All our data suggests that small-scale evolution cannot produce the sort of large-scale change Darwinism requires." C. Hunter, *Darwin's Proof*, 2003, p60
- "The mechanism of heredity by gene action is insufficient to explain observations... The algorithm must be written in some abstract language... No currently existing formal language can tolerate random changes in the symbol sequences" M. Eden "Inadequacies of Neo-Darwinian Evolution as a Scientific Theory," *Mathematical Challenges to the Neo-Darwinian Interpretation of Evolution*, Wistar Institute, 1986

Neo-Darwinian Biology

"Each successive change in the gradual evolutionary process was simple enough, relative to its predecessor, to have arisen by chance." (*Dawkins, The Blind Watchmaker, 1996, p43*)

"If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down" Darwin, *Origin of Species*, p154

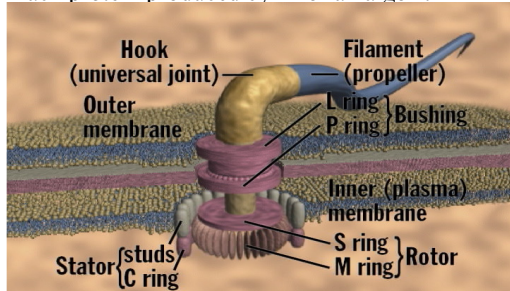
"The failure to observe even one mutation that adds information is more than just a failure to support the theory. It is evidence against the ... neo-Darwinian theory." (*Spetner, Not By Chance, p160*)

Junk DNA: "the remains of nature's experiments which failed." s. Ohno, "So much 'junk' DNA in our genome," *BH Symposia in Biology*: 23, 1972, p366-370

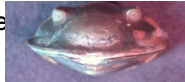
- **Non-coding DNA (98%)** seen as the result of mutations that haven't yet formed of useful genes (random changes produce a functional program)
- "Creationists might spend some earnest time speculating on why the Creator should bother to litter genomes with untranslated pseudogenes and junk tandem repeat DNA." Dawkins, "The Information Challenge," 2004
- Junk DNA "may well go down as one of the biggest mistakes in the history of molecular biology... what was damned as junk because it was not understood may, in fact, turn out to be the very basis of human complexity." John Mattick, "Challenging the Dogma," *BioEssays*: 25, 10/03, p930-939

Bacterial Flagellum: Irreducibly Complex

48+ proteins (>30 unique): <10⁻⁵²⁵⁰ probability
Each protein produced by PI of an algorithm



Lowest Stratum Trilobite Eye



•Transparent calcium carbonate

•“Trilobites had solved a very

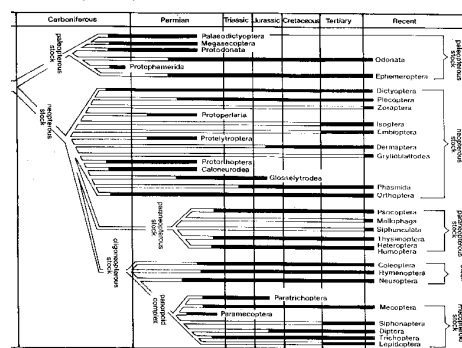
elegant physical problem and apparently knew about Fermat’s principle, Abbe’s sine law, Snell’s laws of refraction and the optics of birefringent crystals.” Clarkson & Levi-Setti, “Trilobite Eyes and the Optics of Des Cartes and Huygens,” *Nature*: 254, 4/24/75, p663 - 667

•“These lenses optimize both light collecting and image formation better than any lens...that optical physics has ever been able to formulate.” N. Eldredge, “A Trilobite Panorama in Eastern North America,” *Fossils Magazine*: 1, 1976, p58-67

•“The design of the trilobite’s eye lens could well qualify for a patent disclosure.” R. Levi-Setti, *Trilobites: A photographic atlas* (2nd edition), 1993, p58

•Each protein for collecting/processing lens material is PI result

Actual (black) vs. Presumed Connections (77 *Ency. Brit.*)



Sudden Appearance and Fixity of Kinds

“according to their kinds” (Gen 1)

“Most of the animal phyla that are represented in the fossil record first appear, ‘fully formed,’ in the Cambrian... The fossil record is therefore of no help with respect to the origin and early diversification of the various animal phyla.” Barnes, *Clow & Olive, The Invertebrates*, 2001, p9–10

“It is as though they were just planted there, without any evolutionary history.” Richard Dawkins, *The Blind Watchmaker*, 1996, p229

The fossil record supports creation with:

Multitude of life in the oldest fossil-bearing rocks

Fixity of species over "eons" of time

NO transitional forms, though claimed – e.g. Tiktaalik

10 million years older tetrapod found! *Nature* (463), 2010, p43-48

Darwinism Revisited

- “The complexity of biology has seemed to grow by orders of magnitude... Biology’s new glimpse at a universe of non-coding DNA has been fascinating and befuddling... the signaling information in cells is organized through networks of information rather than simple discrete pathways. It’s infinitely more complex.” E. Hayden, “Life is Complicated,” *Nature*, 4/10, p664-7
- “Much of the vast neo-Darwinian literature is distressingly uncritical... Natural selection has shown insidious imperialistic tendencies.” Fodor & Piattelli-Palmarini, “Survival of the fittest theory: Darwinism’s limits,” *New Scientist*, 2/3/10
- Extended Synthesis: Likely Neo-Darwinism replacement

Evolution via Natural Genetic Engineering

- “Molecular cell biology has revealed a dense structure of information-processing networks... The natural genetic engineering functions that mediate genome restructuring are activated by multiple stimuli... One of the traditional objections to Darwinian gradualism has been that it is too slow and indeterminate a process to account for natural adaptations, of random mutation and selection ... natural genetic engineering ... employs a **combinatorial search** process based upon DNA modules that already possess functionality ... Such a **cognitive component** is absent from conventional evolutionary theory because 19th and 20th century evolutionists were not sufficiently knowledgeable about cellular response and control networks.” J. Shapiro, “Mobile DNA and evolution in the 21st century,” *Mobile DNA* 1/25/10 (Book: *Evolution: A View from the 21st Century*)

Science Needs to Provide Plausible Mechanisms to Explain **How did nature:**
 write the prescriptive programs needed to organize life’s metabolism?
 formally solve life’s complex problems and write the programs?
 develop the operating systems and programming languages?
 develop the arbitrary protocols for communication and coordination among the thousands (or millions) of computers in each cell?
 develop alternative generation of prescriptive messages using techniques such as overlapping genes, messages within messages, multi-level encryption, and consolidation of dispersed messages?
 defy computer science principles by avoiding software engineering’s top-down approach required for complex programming systems?
 produce complex functional programs without planning by randomly modifying existing algorithms?
 simultaneously modify multiple such programs to result in the production of irreducibly complex structures?
 (from “Programming of Life” -- www.djpol.info)

Intelligent Design vs Creationism

•ID “holds that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection. Through the study and analysis of a system's components, a design theorist is able to determine whether various natural structures are the product of chance, natural law, intelligent design, or some combination thereof.” (Discovery Institute Website)

•Creationism holds that the Bible is true, and science must conform to the facts presented in the Bible, with any disparity due to incomplete human understanding.

Evolution and Religion

•“As the creationists claim, belief in modern evolution makes atheists of people. One can have a religious view that is compatible with evolution only if the religious view is indistinguishable from atheism.” Will Provine, “No Free Will,” 1999, in *Catching Up with the Vision*, pS123

•Evolution is “a full-fledged alternative to Christianity... Evolution is a religion. This was true of evolution in the beginning, and it is true of evolution still today.” Michael Ruse, “Saving Darwinism from the Darwinians,” *National Post*, 5/13/00

Defeating Creationism in the Courtroom, But Not in the Classroom

Berkman & Plutzer, 1/28/11 *Science*. P404-405

- Only “28% of all biology teachers consistently implement the major recommendations and conclusions of the National Research Council”
- Recommended fix is for those “who cannot accept evolution as a matter of faith to pursue other careers.”
- Their plan “would reduce the supply of teachers who are especially attractive to the most conservative school districts.” (& destroy the credibility of science)
- Science evaluates evidence (not dogmatic doctrine)
- “Although they claimed to be wise, they became fools and exchanged the glory of the immortal God for images made to look like man and birds and animals and reptiles.” (Rom 1:22)

Science, Religion, and Society: the Problem of Evolution in America

(Jerry Coyne, doi: 10.1111/j.1558-5646.2012.01664.x, 4/12)

- Cites a 2011 Gallup poll that only “16% accepted that humans evolved from earlier species through a process unguided by God”
- Cites a 2005 Harris poll that just 12% of respondents thought that schools should teach only naturalistic evolution.
- Acknowledges “that America's resistance to evolution is truly a byproduct of America's extreme [theistic] religiosity”
- Coyne's solution to this problem “is to work actively to weaken the grasp of religion on America” (declaring jihad on theism)
- The US Supreme Court has indicated that “religious beliefs... are based... upon a faith, to which all else is subordinate or upon which all else is ultimately dependent” [US v. Seeger, 380 U.S. 163, 1965].
- A criterion requiring one to believe that “physicality is all there is” (as taught in public schools) is a **RELIGIOUS** tenet, since it cannot be proven and all else is subordinate to it. (see ussci.info links).
- “Always be prepared to give an answer to everyone who asks you to give the reason for the hope that you have.” ^{1 Peter 3:15}

Goals of This Presentation

- Christian faith is fact-based, not “blind” or “anti-logic” – “You will know the truth, and the truth will set you free.” (Jn. 8:32). Study and “Always be prepared to give an answer”
- The world is blind to many truths (Rom. 1:18-32, 1 Cor. 1:18-2:16) – “They exchanged the truth of God for a lie.”
- Undirected probability of life is vanishingly small/zero
- Life is filled with real computers and computer programs
- Undirected nature has no explanation for mass/energy, life, and the computer hardware and software of life
- 1000s of scientists acknowledge Darwinism doesn't work
- Naturalism's “Truth” will change (Extended Synthesis?)
- ID isn't creationism, and Darwinism is a religion

Useful ID References

- *Probability's Nature and Nature's Probability*, Don Johnson (2 versions: 2009 Lite & 2009/2010 Scientists')
- *Programming of Life*, Don Johnson, Oct 2010
- *The Privileged Planet*, Gonzalez & Richards, 2004
- *Darwin's Black Box*, Michael Behe, 1996
- *Signature in the Cell*, Stephen Meyer, 2009
- *Uncommon Dissent*, William Dembski, 2004
- arn.org, intelligentdesign.org, uncommondescent.com, scienceintegrity.net (PDF available at www.djgo.info)
- **Creation/Biblically-based References**
- answersingenesis.org, creation.com, icr.org, reasons.org
- *The Case for A Creator*, Lee Strobel, 2006
- *I Don't Have Enough Faith to Be an Atheist*, Geisler, 2004