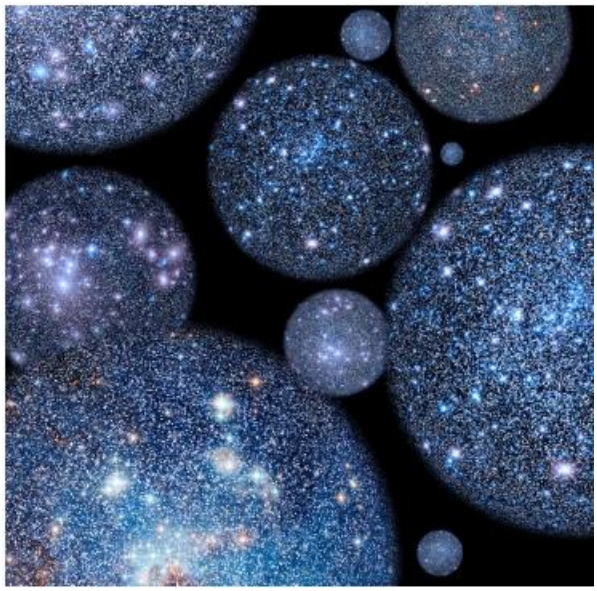
Reality is larger than Naturalism

John Michael Fischer 2022

Naturalism is the foundational view of modern science and academia. It is a belief that everything exists because of natural forces, and supernatural explanations are excluded. This view is strictly enforced in ways ranging from shunning and mockery to coercion through lawsuits, blackballing, and terminating careers of deniers. Naturalism has provided the discipline that led to our current knowledge in chemistry, mechanics, physics, molecular biology, materials, medicine, etc. But enough has also been discovered to reveal that reality is larger than naturalism, as we will see. It will take the continued collective effort of the scientific, academic, news media, and social media communities to continue to protect the public from this truth.

Universal forces



Atomic forces and masses are so precisely balanced, so "finely tuned", that either the universe was designed by an infinitely intelligent and powerful being or there are an infinite number of universes ("**multiverse**") and we just happen to be in one where everything is perfect for life to exist.

"I believe we exist in a multiverse of universes." - Celebrity theoretical physicist Michio Kaku, from *The Future of the Mind*

"This is **the anthropic principle**, the fact that the fundamental constants seem to be finely tuned to allow for life. Changing them even slightly makes life impossible." - Celebrity theoretical physicist Michio Kaku https://www.discovermagazine.com/the-sciences/expert-forum-with-michio-kaku

Consider these facts:

For the universe to form, the force of gravity had to match precisely the explosive force of the Big Bang. If the explosive force were just one part in 10^{55} higher, there would be only gas without stars or planets. If the rate of expansion was lower by just one part in 10^{15}, all matter would have collapsed back to a point in a few million years.

The strength of the force of gravity precisely matches the strength of the electromagnetic force. Gravity is roughly 10^{39} times weaker than electromagnetism. If the force of gravity was changed by one part in 10^{40}, all stars would be either hot blue giants or cool red dwarfs. Stars like the sun would not exist. If the electromagnetic

force were slightly stronger, all stars would be red, and they would collapse more easily into white dwarfs, neutron stars, or black holes. If it were slightly weaker, all stars would be blue, and burn out relatively quickly.

The weak nuclear force affects photons, electrons, and neutrinos. If it were slightly greater, neutrons would decay more quickly and not be available to form helium. If it were significantly greater, hydrogen would quickly burn, and only helium would be available to make stars. Without hydrogen, the universe would not contain water. On the other hand, if it were slightly weaker, hydrogen would become helium, leaving no hydrogen. The weak force also affects beta decay, in which neutrons decay to protons, electrons, and neutrinos. There are about a billion neutrinos for each proton and electron, or about a billion per cubic meter of space throughout the universe. Total neutrino mass could exceed the mass of all stars. So even a miniscule increase in a neutrino's mass (5×10^{-35} kg) would cause the universe to contract instead of expand. Stars are made of hydrogen and helium, and heavier elements are made in the compressed interiors of stars. Supernova explosions of stars spread the heavy elements around their galaxies. These explosions depend on a very precise value of the weak nuclear force. If it were much weaker, neutrinos could not exert enough pressure inside a star to cause a supernova explosion. But if it were much stronger, neutrinos would remain stuck inside a star's core.

The strong nuclear force binds the particles in an atom's nucleus and is the strongest of the forces, about 100 times as strong as the electromagnetic force which in turn is 10,000 times stronger than the weak nuclear force. The weak nuclear force is about 10^{31} times stronger than the force of gravity. Considering these enormous differences in strength, you can appreciate the remarkable precision required to balance these forces to one part in 10^{60}.

If the strong nuclear force were any weaker, nuclei of atoms would not hold together. The universe would have only one element – hydrogen. Deuterium (hydrogen with an added neutron) would not exist. Deuterium is crucial to the nuclear reaction that keeps stars like the sun burning. If the strong nuclear force were only 2% stronger, two protons could bind despite their natural repulsion, and hydrogen would be rare in the universe. Hydrogen was necessary to form both the sun and liquid water. Combined protons would also make hydrogen catastrophically explosive. Heavier elements would be rare as well, and prevent quarks from forming protons. A 2% decrease in the strong nuclear force would make some heavy elements unstable. The weak force controls the sun's burning of hydrogen in a slow and steady way. Deuterium would put the strong nuclear force in control, and burn hydrogen at a rate 10^{18} times faster. That would quickly consume most or all of the hydrogen, leaving helium as the only element in the universe.

The electromagnetic force binds protons and electrons in atoms. If the electromagnetic force were slightly stronger, an atom would not share an electron with other atoms, and molecules would not form. If the force were slightly weaker, electrons would not stay in their paths around an atom's nucleus. And the electromagnetic force must be precisely balanced with the ratio of electron-to-proton mass. If this ratio were not precisely balanced, the chemical bonding required for life would not occur. As it is, the proton is 1,836 times heavier than the electron.

Also, the difference in mass between the proton and neutron (neutron mass minus proton mass) allows stable nuclides to exist. The neutron is more massive than the proton by about one part in a thousand. If the difference were greater, neutrons would decay into protons, and electromagnetic repulsion would blow atomic nuclei apart. This would result in a universe of only protons, with hydrogen the only possible element.

Neutrons are needed to form all the other elements because they have the strong nuclear force to hold nuclei together without the electromagnetic repulsion to disintegrate a nucleus. If the difference in masses were slightly less, free neutrons would not decay into protons, and hydrogen would not exist. If the neutron mass failed to exceed the proton mass by a little more than the electron mass, then atoms would collapse, with electrons combining with protons to make neutrons. As it is now, there are about 7 protons for every neutron, allowing other elements to be made.

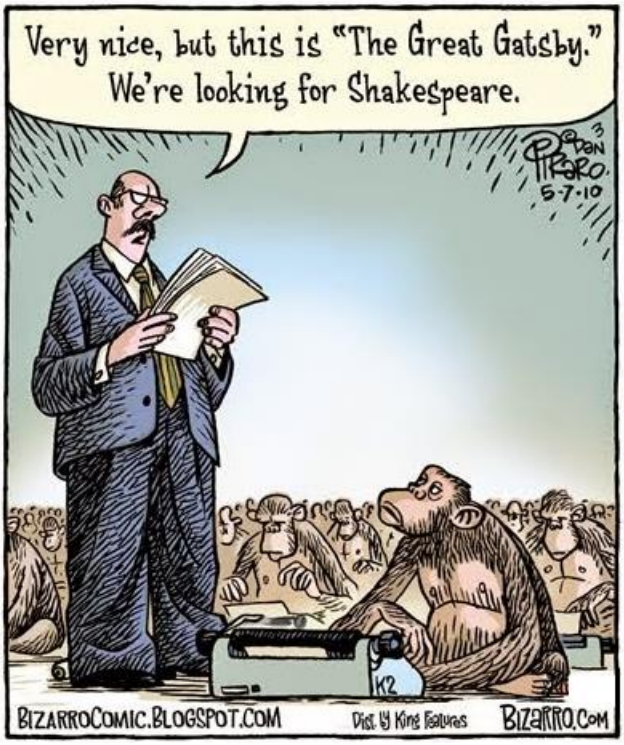
The number of electrons must be balanced to the number of protons to one part in 10^{37}. Without this balance, the force of gravity, which is essential to forming stars and planets, would be overwhelmed by the electromagnetic force.

Because of the precise requirements for its existence, the carbon atom should be very rare. If the resonance level (energy level) of carbon were 4% lower, there would be essentially no carbon. If the level in oxygen were ½% higher, virtually all carbon would have been converted to oxygen. Without carbon, life could not exist.

From: Overman, Dean L. A Case Against Accident and Self-Organization. 1997. 244 pages. Rowman & Littlefield Publishers, Lanham, Maryland. See pages 130 – 142.

Concocting the “multiverse” excuse shows how bankrupt Naturalism is and how desperate its adherents are to salvage it. The universal balance of forces reveals that reality is larger than Naturalism.

The source of DNA coded information



Could a million monkeys typing randomly eventually produce a copy of a play Shakespeare wrote? Maybe, but they would also fill the universe with gibberish in the process. Written languages are coded information with messages that can be intended for people or machines. Shakespeare wrote his coded information for people who read the English language code.

His mind created stories to entertain, inform, and enlighten other minds. He used his hand and a pen to write the code on paper, which was transcribed onto a moveable type printing press system and published in books for other minds who understood the English code. Minds who knew different codes translated Shakespeare's information to other language codes for minds who understood them.

The SETI Institute (search for extraterrestrial intelligence) looks for "coded information" in its search for intelligence, because intelligence and coded information go together. - https://www.seti.org/faq#obs9

Only minds make coded information and devise systems for recording and using information with meaning and purpose; everything else produces meaningless noise. It may seem silly to be explaining this obvious truth, but it is necessary because evolutionists deny the obvious, yet they are trusted by most people. You can trust this:

"**There is no known natural law through which matter can give rise to information, neither is any physical process or material phenomenon known that can do this**."
– Werner Gitt, page 79, 3rd English edition 2001, In the Beginning was Information, CLV, Bielefeld, Germany.

Professor of Engineering Werner Gitt specialized in information science, numerical mathematics and control engineering. He was Director and Professor at the German Federal Institute of Physics and Technology (Physikalisch-Technische Bundesanstalt Braunschweig) before retiring in 2003.

Engineers write coded information for robots, with instructions for making things such as cars. DNA's information is at a higher level than any other language. Its instructions cause the bodies of living organisms (biological machines) to form, grow, and function. If DNA is a language, who is the speaker? Naturalism doesn't have an answer.

The hard problem of consciousness

"The hard problem of consciousness" is the problem of explaining why any physical thing is conscious. Consciousness clearly exists – each person has awareness, a sense of self, of "me".

If Naturalism is true, our minds are the result of neurons firing in some complex fashion. Many hold that view, but nobody lives that way. Who or what am I talking to?

When someone doesn't know about radio and television and they are surprised to hear voices and see people in a box, we cannot fault them for opening the boxes to look for the little people inside. All they find are electronic circuits at work, because radio and television devices act as interfaces for an unseen source.

Scientists searching for decades for the conscious self in human brains have only found circuits at work because, like radio and television, the brain appears to be an interface for an unseen source. My self-awareness – "me" – is present through all the changes in size and ability that our bodies go through from toddlers to old age.

Beyond self-awareness, we have a sense of justice, honor, gallantry, humor, goodness, generosity, morality, magnificence, awe, an appreciation of beauty, etc. that naturalism struggles to explain.

In his 2012 book *Mind and Cosmos*, Oxford University Press, distinguished professor of philosophy and law at New York University Thomas Nagel states that Darwinian evolution could not produce consciousness; that consciousness is not reducible to material phenomena. That is from an atheist.

Researchers in artificial intelligence have not been able to put consciousness in robots or computers, and they have no idea how to achieve it.

Sadly, the Naturalist view extends to the animal world. If they are just biological robots, it doesn't matter what we do to them. But can Naturalism produce the source of animal behavior? Without teaching, organisms throughout the Animal Kingdom, from insects to spiders to crabs to jellyfish to squids to frogs to alligators to fish to birds to kangaroos to rabbits and on and on, know how to use their bodies, know how to get food and water, recognize their own kind and how to communicate with them, understand their own social structure, know how to survive, know how and when to reproduce, recognize danger and know how to react to it, in their own unique and specified ways. It's all in their DNA. Naturalism can't point to mutations that produced those results.

Being unable to communicate with most of the Animal Kingdom makes it hard for researchers to know whether there is that sense of "me" in animals other than ourselves. But sometimes when you look close, they act like it.

"When dogs reunite with their owners, they exhibit highly affiliative behavior, including gazing at their owners, wagging their tails, jumping up, and licking their owner's faces."

"In this study, we demonstrated that dogs secrete tears when reuniting with their owner, and our data suggest that this tear secretion is mediated by oxytocin. This is the first report on positive emotion stimulating tear secretion in a non-human animal, and oxytocin functioning in tear secretion. Unlike any other animals, dogs have evolved or have been domesticated through communication with humans and have gained high-level communication abilities with humans using eye contact. Through this process, their tears might play a role in eliciting protective behavior or nurturing behavior from their owners, resulting in the deepening of mutual relationships and further leading to interspecies bonding." – Murata, Kaori, Miho Nagasawa, Tatsushi Onaka, Nobuyuki Kanemaki, Shigeru Nakamura, Kazuo Tsubota, Kazutaka Mogi, Takefumi Kikusui. August 22, 2022. Increase of tear volume in dogs after reunion with owners is mediated by oxytocin. Current Biology Magazine, Vol. 32, pp. R855–R873

Jumping spiders dream. Researchers reported "direct evidence for an REM sleep-like state in a terrestrial invertebrate - an arthropod - with clear parallels to REM sleep in terrestrial vertebrates. The combination of periodic limb twitches and eye movements during this sleep-like state as well as the increase of duration of REM sleep-like bouts meets core behavioral criteria of REM sleep observed in vertebrates, including humans. – Roessler, Daniela C., Kris Kim, Massimo De Agro, Alex Jordan, C Giovanni Galizia, Paul S. Shamble6. 2022. Regularly occurring bouts of retinal movements suggest an REM sleep–like state in jumping spiders. PNAS, Vol. 119, No. 33, 3 pages. e2204754119 DOI: 10.1073/pnas.2204754119

The existence of consciousness, our daily reality, is outside the realm of Naturalism.

Origin of life research

"Over the past sixty years, dedicated and skillful scientists have devoted much effort and ink to the origin of life, with remarkably little to show for it." [Quoting Radu Popa, 2004,] "'So far, no theory, no approach, no set of formulas, and no blackboard scheme has been found satisfactory in explaining the origin of life.' At the conclusion of a century of science, whose great glory is the discovery of how living things work, there is something downright disgraceful about this confession, an intimation that despite our vast knowledge and clever technology there may be questions that exceed our grasp. But its truth is indisputable."

- Franklin M. Harold, Professor Emeritus, Department of Biochemistry and Molecular Biology, Colorado State University, Fort Collins, Colorado, and Affiliate Professor, Department of Microbiology, University of Washington Health Sciences Center, Seattle, Washington. From a chapter titled "Ultimate Riddle - Origin of Cellular Life" in his 2014 book "In Search of Cell History: The Evolution of Life's Building Blocks" published by the University of Chicago Press

- Radu Popa. 2004. Between Necessity and Probability: Searching for the Definition and Origin of Life. 265 pages. Springer-Verlag, Heidelberg.

An interview with Steven A. Benner, Ph.D. Chemistry, Harvard, prominent origin-of-life researcher and creator of the Foundation for Applied Molecular Evolution, was posted on Huffington Post on December 6, 2013. In it he said, "We have failed in any continuous way to provide a recipe that gets from the simple molecules that we know were present on early Earth to RNA." "The first paradox is the tendency of organic matter to devolve and to give tar. If you can avoid that, you can start to try to assemble things that are not tarry, but then you encounter the water problem, which is related to the fact that every interesting bond that you want to make is unstable, thermodynamically, with respect to water. If you can solve that problem, you have the problem of entropy, that any of the building blocks are going to be present in a low concentration; therefore, to assemble a large number of those building blocks, you get a gene-like RNA - 100 nucleotides long - that fights entropy. And the fourth problem is that even if you can solve the entropy problem, you have a paradox that RNA enzymes, which are maybe catalytically active, are more likely to be active in the sense that destroys RNA rather than creates RNA." http://www.huffingtonpost.com/suzan-mazur/steve-benner-origins-souf_b_4374373.html

”Life should not exist. This much we know from chemistry. In contrast to the ubiquity of life on earth, the lifelessness of other planets makes far better chemical sense.” “Let us assume that *all* the molecules we think may be needed to construct a cell are available in the requisite chemical and stereochemical purities. Let us assume that these molecules can be separated and delivered to a well-equipped laboratory. Let us also assume that the millions of articles comprising the chemical and biochemical literature are readily accessible. How might we build a cell?

It is not enough to have the chemicals on hand. The relationship between the nucleotides and everything else must be specified and, for this, coding information is essential. DNA and RNA are the primary informational carriers of the cell. No matter the medium life might have adopted at the very beginning, its information had to come from somewhere. A string of nucleotides does not inherently encode anything. Let us assume that DNA and RNA are available in whatever sequence we desire.

A cell, as defined in synthetic biological terms, is a system that can maintain ion gradients, capture and process energy, store information, and mutate. Can we build a cell from the raw materials? We *are* synthetic chemists, after all. If we cannot do it, nobody can.”

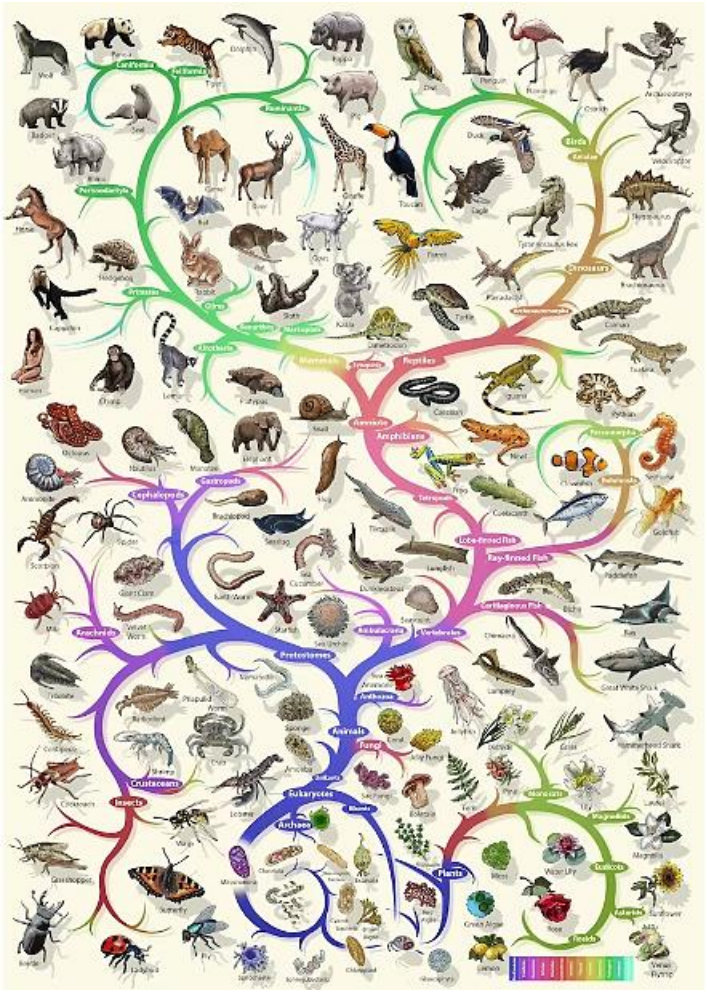
“We synthetic chemists should state the obvious. The appearance of life on earth is a mystery. We are nowhere near solving this problem. The proposals offered thus far to explain life’s origin make no scientific sense.

Beyond our planet, all the others that have been probed are lifeless, a result in accord with our chemical expectations. The laws of physics and chemistry’s Periodic Table are universal, suggesting that life based upon amino acids, nucleotides, saccharides and lipids is an anomaly. Life should not exist anywhere in our universe. Life should not even exist on the surface of the earth.” – James Tour is a synthetic organic chemist at Rice University. From “An Open Letter to My Colleagues” https://inference-review.com/article/an-open-letter-to-my-colleagues

There is no self-organizing force or principle in nature. There is the opposite – a disintegrating, dispersing trend codified in the Second Law of Thermodynamics. Origin of life researchers have learned over the decades that the long molecules (polymers) which allow biological creatures to work must be isolated in pure concentrations for there to be any chance of success. That can only happen in biochemistry labs, computer simulations, and living cells. In all other settings, the products are unusable due to contamination, unwanted reactions with other chemicals, and minuscule concentrations that quickly fall apart.

Naturalism cannot replicate the origin of life.

The source of biological novelty



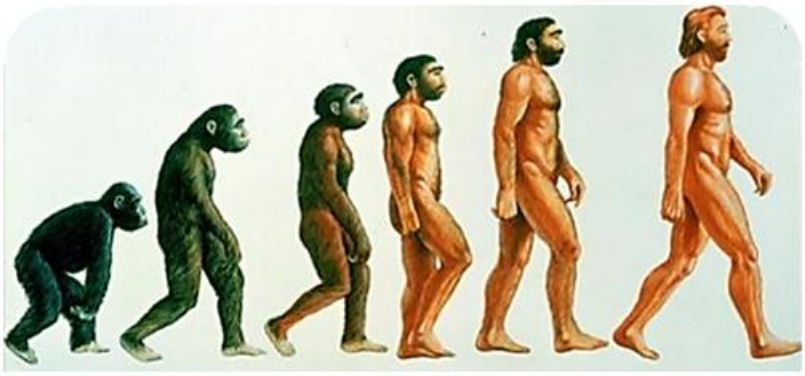
The Theory of Evolution starts with the first self-replicating cell and ends with every living thing. That means producing billions of parts and systems that had never existed.

Evolutionary biologists have been unable to demonstrate in detail or experiment the invention process; their reports are more like historical speculation, where they try to guess *when* new things appeared.

Evolutionary biologists are stuck with that because it has been impossible for them to find a natural source of biological novelty. The reason was mentioned earlier: *coded information*.

The invention of a new part, such as the first liver or spider spinneret, would not begin with molecules coming together to make the organ. It would first require new coded information in DNA to make proteins that include the new organ in an animal's development from egg to adult. Even more coded information in DNA would be needed to integrate the new organ into the body's functional systems and allow the animal to control it.

As we have seen, only a mind can write coded information. But that is unacceptable as a creative evolutionary actor in Naturalism, hence the dilemma. In its place has been random mutation. As an engineering device, random mutation is proving to be a worthless option. Here is an example using a numerical simulation program.



“It is estimated that it only took six million years for the chimp and human genomes to diverge by over 5%, representing about 150 million nucleotide differences.”

“The gene can range in size from about 1,000 to more than one million nucleotides long. A typical human gene is roughly 50,000 nucleotides long. A new gene is thought to arise from a previously existing gene, with the mutation/selection process establishing mutations within a long text string that is already established and functional.”

“It is now generally recognized that beneficial mutations are rare, and that high-impact beneficial mutations are extremely rare. In higher life forms where population sizes are modest, the mutation rate per nucleotide per generation is normally extremely low (about 10^{-8}). This means that the waiting time for a specific nucleotide within single chromosomal lineage would be 100 million generations.”

Researchers “simulated a classic pre-human hominin population of at least 10,000 individuals, with a generation time of 20 years”.

“Even given very substantial fitness effects, the waiting time for a specific point mutation ranged between 1.5 and 15.9 million years”.

“To establish a string of two nucleotides required on average 84 million years. To establish a string of five nucleotides required on average 2 billion years.”

“As string length increased linearly, the increase in waiting time was of an exponential nature. When there were as many as six nucleotides in the string, the average waiting time (4.24 billion years) approached the estimated age of the earth. When there were eight nucleotides in the string, the average waiting time (18.5 billion years), exceeded the estimated age of the universe.”

“Our results generally represent best-case scenarios in terms of minimizing waiting time. When we use more realistic parameter settings for our simulations, we consistently get much longer waiting times.”

“Numerous other researchers have come to similar conclusions. The long waiting times we report here are even supported indirectly by the papers that have argued against a serious waiting time problem. When examined carefully, those papers indicate that for a hominin-type population, waiting times are as long or even longer than we report here.”

“When a population faces a specific evolutionary challenge, a specific fix is needed, and it must arise in a timely fashion. Positive selection cannot generally begin to resolve an evolutionary challenge until just the right mutation (or mutations) happens at just the right position (or positions). Selection for the required trait can only begin after the mutation (or mutations) result in a substantial (selectable) improvement in total biological functionality.”

“The creation and fixation of a string of three (requiring at least 380 million years) would be extremely untimely adaptation in the face of any type of pressing evolutionary challenge (and trivial in effect), in terms of the evolution of modern man” who has “a genome with over three billion nucleotides.”

“It is widely thought that a larger population size can eliminate the waiting time problem.” “When we increase the hominin population from 10,000 to 1 million, the waiting time for creating a string of five is only reduced from two billion to 482 million years.” - Sanford, John, Wesley Brewer, Franzine Smith and John Baumgardner. December 2015. The waiting time problem in a model hominin population. Theoretical Biology and Medical Modelling, Vol. 12, No. 1, Article 18, 28 pages, DOI: 10.1186/s12976-015-0016-z.

So when an environmental factor appears that requires a novel adaptation, developing something new would take random mutation millions of years. Meanwhile, extinction.

In the absence of a physical mechanism, the problem is bypassed these days with a sleight-of-hand trick: an animal *needed something to solve a problem*, so it evolved a solution (or “strategy”).

That of course violates basic Evolution theory, but it is extremely common in articles on evolution, such as this one:

“During vertebrate evolution, the first tetrapods transitioning from water to land were confronted with new environmental challenges that required adaptive innovations in the nervous system. These innovations are exemplified in the six-layered neocortex and the dorsal ventricular ridge (DVR) of present-day mammals and sauropsids (reptiles and birds), respectively.” – Woych, Jamie, Alonso Ortega Gurrola, Astrid Deryckere, Eliza C. B. Jaeger, Elias Gumnit, Gianluca Merello, Jiacheng Gu, Alberto Joven Araus, Nicholas D. Leigh, Maximina Yun, András Simon, Maria Antonietta Tosches. 2 September 2022. Cell-type profiling in salamanders identifies innovations in vertebrate forebrain evolution. Science, Vol. 377, No. 1063, DOI:10.1126/science.abp9186

Or this one:

“Electric organs help electric fish, such as the electric eel, do all sorts of amazing things”. “A new study in *Science Advances* explains how small genetic changes enabled electric fish to evolve electric organs.”

“Evolution took advantage of a quirk of fish genetics to develop electric organs. All fish have duplicate versions of the same gene that produces tiny muscle motors, called sodium channels. To evolve electric organs, electric fish turned off one duplicate of the sodium channel gene in muscles and turned it on in other cells. The tiny motors that typically make muscles contract were repurposed to generate electric signals, and voila! A new organ with some astonishing capabilities was born.”

“Harold Zakon [is] professor of neuroscience and integrative biology at The University of Texas at Austin and corresponding author of the study.” “Zakon said the sodium channel gene had to be turned off in muscle before an electric organ could evolve.” “‘If they turned on the gene in both muscle and the electric organ, then all the new stuff that was happening to the sodium channels in the electric organ would also be occurring in the muscle,’ Zakon said.” “‘So, it was important to isolate the expression of the gene to the electric organ, where it could evolve without harming muscle.’”

“‘This control region is in most vertebrates, including humans,’ Zakon said.” – How Electric Fish Were Able to Evolve Electric Organs. June 1, 2022. UT News, Science & Technology, The University of Texas at Austin. https://news.utexas.edu/2022/06/01/how-electric-fish-were-able-to-evolve-electric-organs/

Darwinian evolution is supposed to be descent with modification. **Convergent evolution**, by contrast, is the appearance of the same feature in unrelated creatures.

Using the trick, you can dispense with descent with modification. Just find a problem that needs solving, and evolution produces the amazing solution over and over. That is useful because convergent evolution is popping up in more and more reports from evolutionary biologists,

Orphan genes are genes that lack detectable similarity to genes in other species. They are typically 10% to 30% of all the genes in any genome. That is the case for every taxonomic group studied so far. There is no place in Evolution theory for orphan genes, which appear “de novo”.

Naturalism has no realistic way to engineer the billions of innovations found in the Animal Kingdom. Reality is larger than Naturalism.

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