

"Evolution is a fact. And far from casting doubt on Darwinism, the evidence gathered by scientists over the past century and a half supports it completely, showing that evolution happened, and that it happened largely as Darwin proposed, through the workings of natural selection."

Jerry A. Coyne (2009). Why Evolution Is True, p.xiii-xiv, Penguin



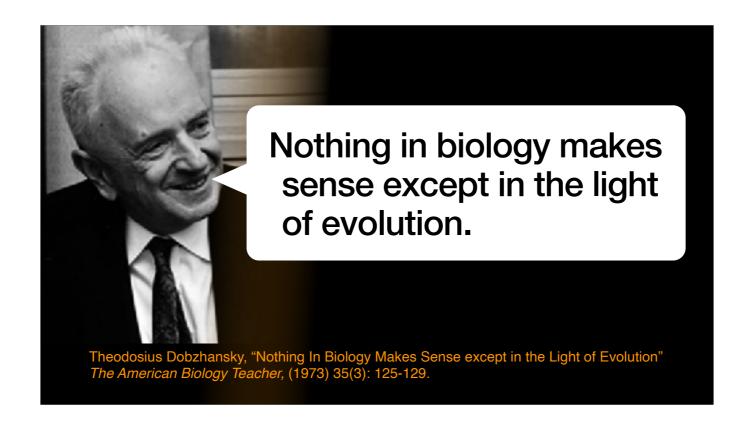
In 2009 the Texas State Board of Education voted to require students to learn about both the scientific evidence for and against Neo-Darwinian evolution. Scott made the above declaration to the media... BUT IS IT TRUE?

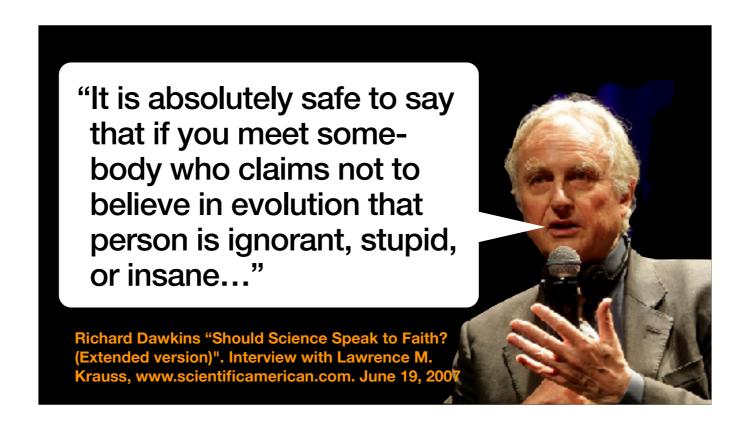
"Although many details remain to be worked out, it is already evident that all the objective phenomena of the history of life can be explained by purely naturalistic or [...] materialistic factors. They are readily explicable on the basis of differential reproduction in populations [that's natural selection], and the mainly random interplay of the known processes of heredity [random mutation]. Therefore, man is the result of a purposeless and natural process that did not have him in mind."



George Gaylord Simpson, *The Meaning of Evolution: A Study of the History of Life and of Its Significance for Man.* rev. ed. (New Haven, CT: Yale University Press, 1967), 345.

Image by stephenjaygould.org, Concession to the Improbable (1978), Fair use, <a href="https://en.wikipedia.org/w/index.php?curid=21756604">https://en.wikipedia.org/w/index.php?curid=21756604</a>





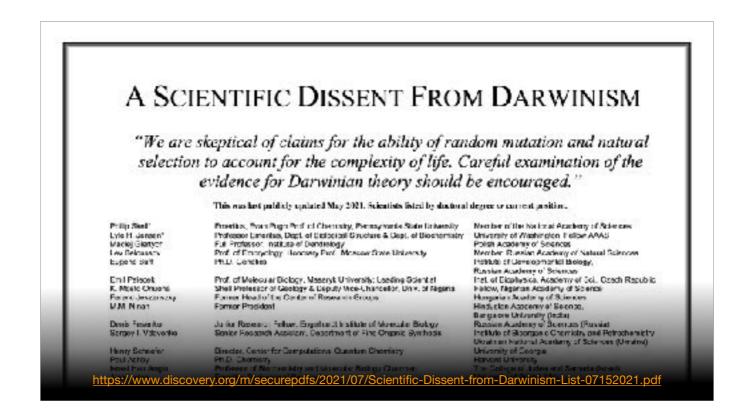
In this interview Dawkins quotes himself and argues that ignorance is not an insult. He misses the point of most of his detractors. He has asserted that all who are not ignorant are believers in evolution as he defines it, or else have some mental or moral deficiency. "Should Science Speak to Faith? (Extended version)". Interview with Lawrence M. Krauss, www.scientificamerican.com. June 19, 2007.

"Fundamentalist Christians are passionately opposed to evolution and I am passionately in favour of it. Passion for passion, we are evenly matched." Dawkins, Richard. The God Delusion (pp. 18-19). HarperCollins. Kindle Edition.

"If all the evidence in the universe turned in favour of creationism, I would be the first to admit it, and I would immediately change my mind. As things stand, however, all available evidence (and there is a vast amount of it) favours evolution. It is for this reason and this reason alone that I argue for evolution with a passion that matches the passion of those who argue against it. My passion is based on evidence. Theirs, flying in the face of evidence as it does, is truly fundamentalist."

Dawkins, Richard. The God Delusion (p. 19). HarperCollins. Kindle Edition.

Despite this claim, others have observed of Dawkins that he is as sensitive to criticism as a black hole in space... (Berlinski)



https://www.discovery.org/m/securepdfs/2021/07/Scientific-Dissent-from-Darwinism-List-07152021.pdf

In order to be eligible to sign, all of these people must have earned doctorates in their field. The list of Scientists who have signed (as of May 2021) runs on to 28 pages. As of 2019 there were already more than a thousand signatures.

It's important to note that many would-be signers were deterred by fears that signing would damage their careers. The number of dissenters is likely vastly more than the number of those courageous enough to sign on...



Are these 1000+ Ph.D. scientists and M.D.s "ignorant, stupid, or insane"



cre-a-tion \krē-'ā-shən\ noun 14th
1: the act of creating especially:
the act of bringing the world into
ordered existence...

Merriam-Webster's Collegiate Dictionary. (Springfield, MA: Merriam-Webster, Inc., 2003)

cre-a-tion-ism \-shə- ni-zəm\ noun 1880: a doctrine or theory holding that matter, the various forms of life, and the world were created by God out of nothing and usually in the way described in Genesis.

creation science noun 1979: CREATIONISM also: scientific evidence or arguments put forth in support of creationism

Merriam-Webster's Collegiate Dictionary. (Springfield, MA: Merriam-Webster, Inc., 2003)

Once you start reading the literature you will quickly see that "creationist" becomes a pejorative.

Generally the wider world views creationists (especially YEC) as trying to force science to support the Bible and ignoring anything that does not fit.

### scientific creationism noun

1979: a doctrine holding that the biblical account of creation is supported by scientific evidence Inc Merriam-Webster, Merriam-Webster's Collegiate Dictionary. (Springfield, MA: Merriam-Webster, Inc., 2003).

# **Creationism as a Pejorative**

The scientist and secular Jew, David Berlinski reckons that "Scientific atheism... has one brilliant insult to it's credit, and that is the description of intelligent design as 'creationism in a cheap tuxedo."

David Berlinski, The Devil's Delusion: Atheism and Its Scientific Pretensions (New York) Crown Forum, 2008) 183.

Intelligent design: "The theory of intelligent design simply says 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."

Michael J. Behe and Steven Meyer, "What is Intelligent Design?" Discovery.org, May 10, 2018, <a href="https://www.discovery.org/v/what-is-intelligent-design/">https://www.discovery.org/v/what-is-intelligent-design/</a>

Usually, ID stops short of identifying the intelligent cause. Consequently there are Christians, Jews, Muslims, and others in the ID movement. ID is a "Big Tent" with people from various perspectives on the nature of creation and the age of the earth.

evo•lu•tion \ e-və-'lü-shən, ē-və-\ noun[Latin evolution-, evolutio unrolling, from evolvere] 1622

- 1: one of a set of prescribed movements
- 2 a: a process of change in a certain direction: [...] c (1): a process of continuous change from a lower, simpler, or worse to a higher, more complex, or better state: GROWTH [...] 3: the process of working out or developing
- a: the historical development of a biological group (as a race or species): PHYLOGENY b: a theory that the various types of animals and plants have their origin in other preexisting types and that the distinguishable differences are due to modifications in successive generations also: the process described by this theory [...]
- 6: a process in which the whole universe is a progression of interrelated phenomena

Merriam-Webster's Collegiate Dictionary. (Springfield, MA: Merriam-Webster, Inc., 2003).

## WHAT IS EVOLUTION?

**Conflations and Equivocations...** 

- Change over time; history of nature; any sequence of events in nature.
- Changes in the frequencies of alleles in the gene pool of a population.
- Limited common descent: the idea that particular groups of organisms have descended from a common ancestor.
- The mechanisms responsible for the change required to produce limited descent with modification, chiefly natural selection acting on random variations or mutations [Microevolution].

Don Deal, "Scientific Apologetics Lecture 10"

Notice that most Christians can agree that these first several definitions are acceptable... The next are far from it.

Alleles are "any of the alternative forms of a gene that may occur at a given locus" (MWCD, 11th ed.)

## WHAT IS EVOLUTION?

**Conflations and Equivocations...** 

- Universal common descent: the idea that all organisms descended from a single common ancestor [Macroevolution].
- "Blind watchmaker" thesis: the idea that all organisms have descended from common ancestors solely through unguided, unintelligent, purposeless, material processes such as natural selection acting on random variations or mutations; that the mechanisms of natural selection, random variation and mutation, and perhaps other similarly naturalistic mechanisms, are completely sufficient to account for the appearance of design in living organisms.

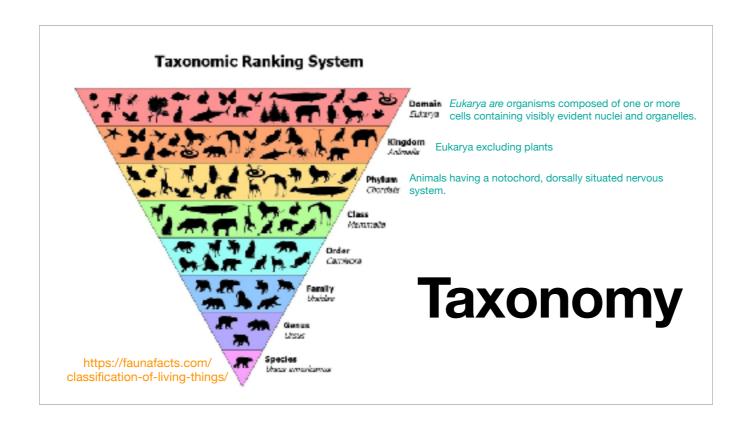
Don Deal,"Scientific Apologetics Lecture 10'

The last definition is what you would get from the likes of Richard Dawkins—and is blatantly atheistic in character.

### sci•ence \'sī-ən(t)s\ noun [....]

- 1: the state of knowing: knowledge as distinguished from ignorance or misunderstanding
- a: a department of systematized knowledge as an object of study (the science of theology)
- b: something (as a sport or technique) that may be studied or learned like systematized knowledge 〈have it down to a science〉
- 3 a: knowledge or a system of knowledge covering general truths or the operation of general laws especially as obtained and tested through scientific method b: such knowledge or such a system of knowledge concerned with the physical world and its phenomena: NATURAL SCIENCE [...]

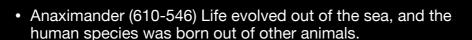
Merriam-Webster's Collegiate Dictionary. (Springfield, MA: Merriam-Webster, Inc., 2003).



Chordata includes but is not limited to vertebrates. It also includes lancelets and tunicates—but we're not worried about going into depth in this.

## **History of Evolutionary Theory...**

An ancient Idea in modern dress.





- Empedocles (494-434 BC) Everything consists of four elements (earth, air, fire, and water) and these gave rise to something like disembodied organs that gradually evolved into the creatures we know today. Natural elements acted upon by natural causes to produce the range of life we know without intervention.
- Lucretius (99-55 BC) naturalistic development of the universe apart from gods.
- Erasmus Darwin (1731-1802 grandfather of Charles Darwin)
- Charles Darwin (1809-1882) Speciation by means of natural selection.

Don Deal,"Scientific Apologetics Lecture 10"

If you want a much deeper dive into the history of Evolution from deep antiquity onward, one good place to start is Morris' *The Long War Against God.*Morris Writes:

"Thales and Anaximander taught that men evolved from animals, animals from plants, plants from inorganic elements, and all these from water. Xenophanes argued, on the basis of fossil shells on mountains, that land animals had evolved from marine animals. Both Heraclitus and Empedocles held that random changes led to development, which involved a form of struggle for existence and natural selection, long anticipating Darwin."

Morris, Henry. The Long War Against God (The Henry Morris Signature Collection) (p. 291). Master Books. Kindle Edition.

Lucretius wrote, "Bear this well in mind and you will immediately perceive that *nature is free and uncontrolled by proud masters and runs the universe by herself without the aid of gods*" Lucretius, The *Nature of the Universe*, translated by R.E. Latham (New York: Penguin, 1951). Reprinted in Theories of the Universe, Milton K. Munitz, editor (Glencoe, IL: The Free Press, 1957), p. 53. [cited in Morris, *TLWAG*, 284.]

#### **Erasmus Darwin**

The Temple of Nature (1802)

Organic life beneath the shoeless waves

Was born and nurs'd in Ocean's pearly caves;

First forms minute, unseen by spheric glass,

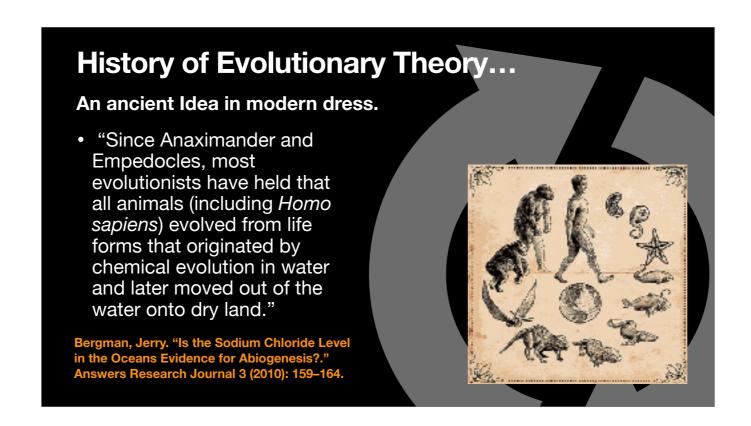
Move on the mud, or pierce the watery mass;

These, as successive generations bloom,

New powers acquire, and larger limbs assume;

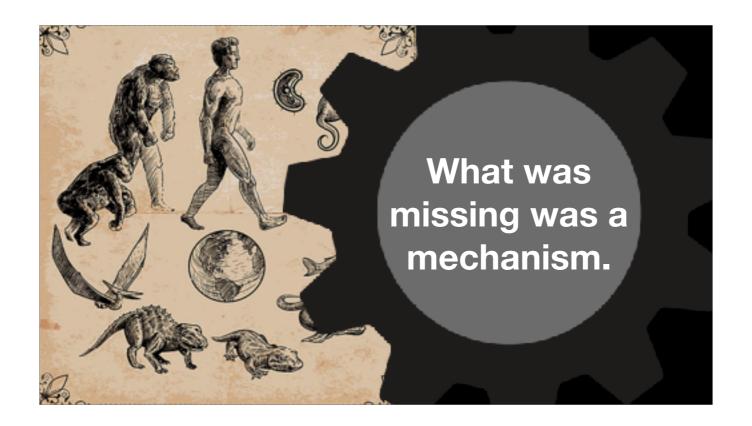
Whence countless groups of vegetation spring,



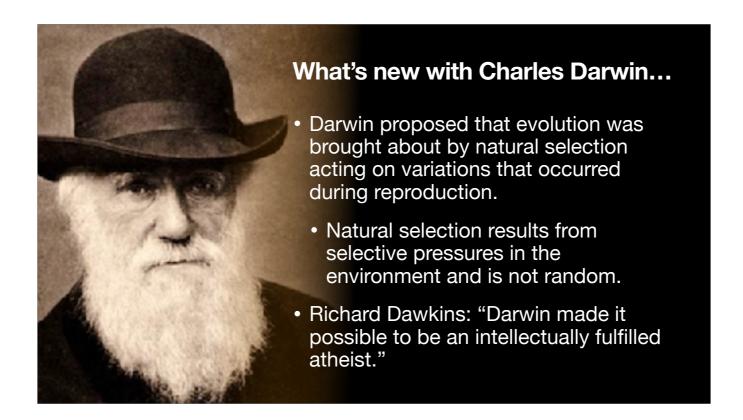


Of course the language Bergman uses was not that of the ancients, but the ideas were there.

Bergman, Jerry. "Is the Sodium Chloride Level in the Oceans Evidence for Abiogenesis?." Answers Research Journal 3 (2010): 159–164. <a href="https://answersresearchjournal.org/sodium-chloride-level-oceans-abiogenesis/">https://answersresearchjournal.org/sodium-chloride-level-oceans-abiogenesis/</a>.

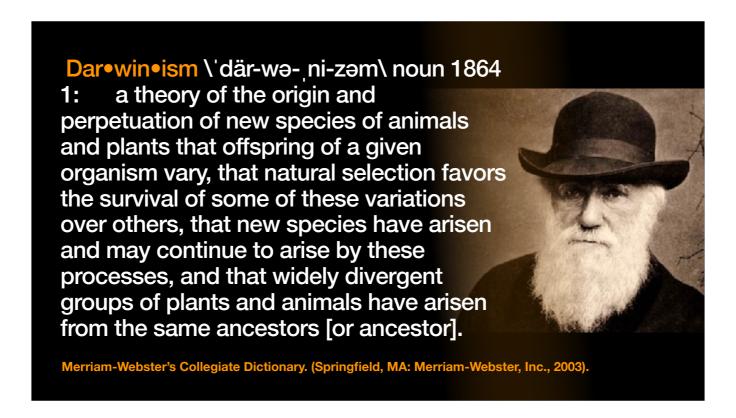


What mechanism did Darwin provide?



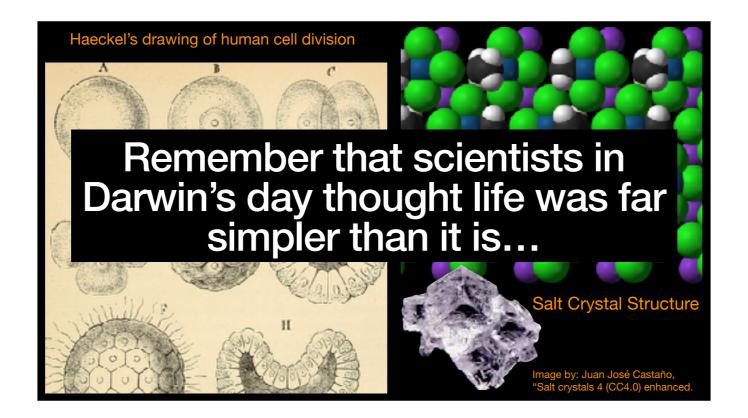
What was lacking in the previous theories of evolution was a mechanism. Darwin provided that mechanism in On the Origin of the Species.

That mechanism is natural selection acting on random genetic changes.



The modern "Neo-Darwinian synthesis" adds in population genetics and other elements Darwin would not have dreamt of, but essentially maintains the same theory, adjusted for development in science.

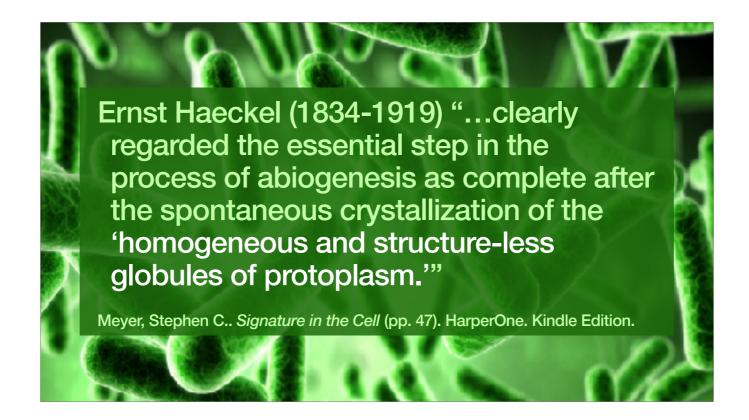
neo-Dar•win•ism \-'där-wə-ni-zəm\ noun circa 1900: a theory of evolution that is a synthesis of Darwin's theory in terms of natural selection and modern population genetics—neo-Dar•win•ist \-'där-wə-nist\ noun



The above left side is Haeckel's conception of the first stages of human cell division. He saw no real complexity at the cellular level, and several times (that I know of) compares life to crystal formation...

"The origin of every simple salt crystal, which we obtain by evaporating its mother liquor, is no less mysterious to us, as far as concerns its first cause, and in itself no less incomprehensible than the origin of every animal which is developed out of a simple cell."

Haeckel, Ernst. The History of Creation (Vol.1&2) (Kindle Locations 402-404). e-artnow. Kindle Edition.



What's in the background here is an artist's depiction of blue-green algae (cyanobacteria), a form of monera or single-celled organism. These are in the family of creatures Haeckel considered "homogeneous and structure-less globules of protoplasm."

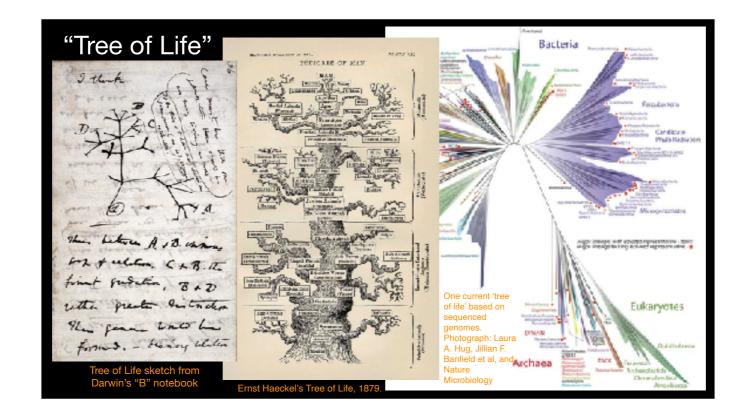
Even in Haeckel's day, there was no excuse for thinking these organisms simple. Others had already observed that anything that could reproduce itself had to be of great complexity...

## **Top Challenges to Evolution**

Why life cannot develop naturalistically from a common ancestor

- Different methods lead to different evolutionary trees-at most, one could be tru
- Random mutations cannot generate the genetic information required for irreducibly complex structures.
- Natural selection struggles to fix advantageous traits.
- Abrupt appearance of species in the fossil record "Cambrian Explosion"
- · Geographic distribution of species.
- The theory of evolution has consistently led to bad predictions of what would be found.
- Evolution cannot explain the human mind (adequately)

Due to space and time, we're just going to touch on a few of these today.



Johnathan Wells calls the "Tree of Life" the most dominant and important of the "Icons of Evolution".

Notably it is not logically possible for two conflicting evolutionary trees to both be true but it is possibly for all to be false... There are different trees, based on differing views of taxonomy, and based on analysis of genetics.

Image credit: <a href="https://i.guim.co.uk/img/static/sys-images/Guardian/Pix/pictures/2008/04/17/DarwinSketch.article.jpg?">https://i.guim.co.uk/img/static/sys-images/Guardian/Pix/pictures/2008/04/17/DarwinSketch.article.jpg?</a>
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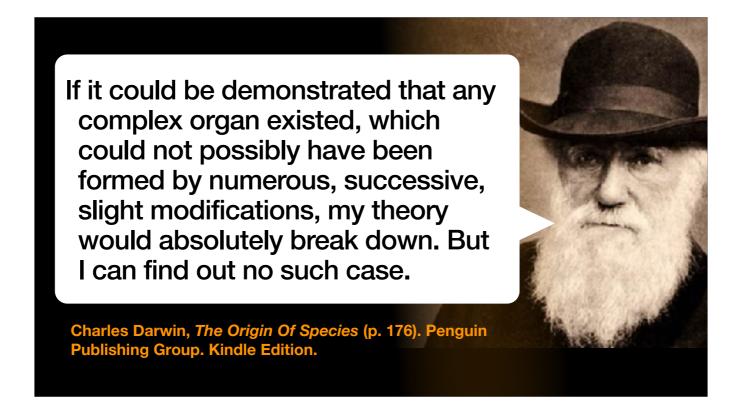
### **Problems with the "Tree of Life"**

- If it were true, there can only be one tree. BUT there are many different trees that come out of different perspectives. The tree produced by taxonomy is very different from the trees coming out of molecular genetics.
- "'Orphan' genes are stretches of DNA found in only one group. They
  have been found in every organism whose whole genome has been
  studied so far."
- "Most biologists ignore "orphan" genes in making their trees."
- "The reason we get a tree is because we assume at the outset that its there."

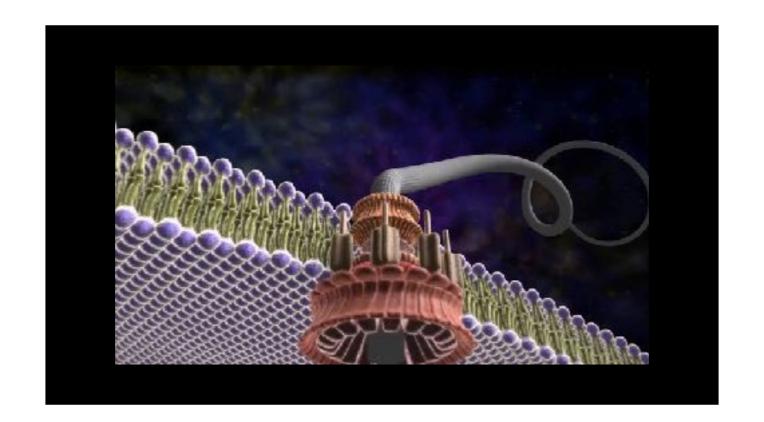
Discovery Science, "Zombie Science: Jonathan Wells on Overselling Darwin's Tree of Life" YouTube, Jun 16, 201



The flagellar motor—like many other cellular machines—is an example of a natural machine that cannot work without all its parts, and for which there is no plausible "evolutionary path" to produce it.



But remember how little Darwin knew of the cell... He had no inkling of what complexities existed that were too small for him to see with the technology of that day.



Video is 3:17 long.



- The more mutations that must happen at once, the exponentially lower the odds that it can happen.
- No intermediate step can be "selected for" without having an adaptive advantage. Typically things that are not advantageous eventually dissapear.

Natural selection cannot select for things with no *current* reproductive advantage. Extra and unused parts and functions tend to disappear.



In the article this comes from the staff are trying to explain how the flagellar motors evolved, but all there is is huge speculation with little to no substance. If you assume all flagellar motors evolved, then this makes sense.

What's wrong with this picture? Notice there are ends—these represent examples seen today—but no examples at the nodes, and no plausible ancestor. You can only get so "simple" before the motor ceases to be a motor, and becomes a liability.

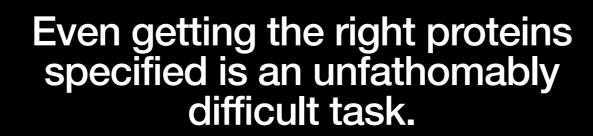
You can string all kinds of things together in a way the looks something like this...[next slide]

"Biologists Trace Evolution of Bacterial Flagellar Motors" Sci News, January 9, 2018. http://www.sci-news.com/biology/bacterial-flagellar-motors-05612.html



Here, Yamaha can have some free advertising...

You could line up flower pots, motorcycles, dogs... but given the comparison, outboards seemed appropriate. They all have similarities and design features in common, but diverge because they are designed to fulfill different functions—just like bacterial flagellum.



The citation below serves to illustrate that there is a tremendously great degree of specified information separating the most similar and simple of species. It forms a gap that cannot be explained naturalistically.

"The scale of this complexity is illustrated by research published in 2021 that compares the DNA of 1,089 bacteria, which are the simplest living organisms. The researchers, led by bioengineer Joana C. Xavier, who was at Heinrich Heine University Düsseldorf in Germany at the time, looked for protein families that were common across the species of bacteria, as these were likely to be truly ancient—dating back over three billion years to the last common ancestor of all bacteria. **They found 146** such protein families, revealing that even the earliest bacteria were extraordinarily intricate and the product of a long period of evolution."

Michael Marshall, "Impossible' chemistry may reveal origins of life on earth: Experts suggest that metabolism could have begun spontaneously on our primordial planet—and that scientists may need to rethink how we define life." *National Geographic*, April 4, 2022, <a href="https://www.nationalgeographic.com/science/article/impossible-chemistry-may-reveal-origins-of-life-on-earth">https://www.nationalgeographic.com/science/article/impossible-chemistry-may-reveal-origins-of-life-on-earth</a>

"Of the possible genes encoding protein chains 153 amino acids in length [relatively small as proteins go], only about one in a hundred trillion trillion trillion trillion trillion trillion trillion trillion trillion perform a biological function!"

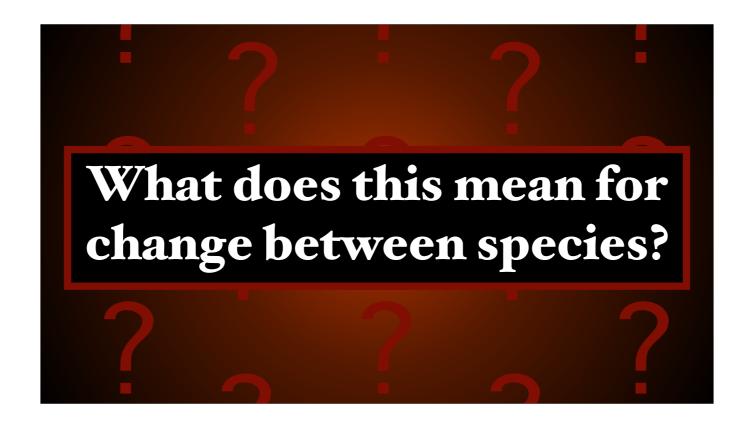


Axe, Douglas. Undeniable (p. 181). HarperCollins. Kindle Edition.

This is like blindly hitting a target the size of a hydrogen atom on the surface of a sphere twenty-eight billion lightyears in diameter (the size of the visible universe).

New species require new proteins—sometimes many new proteins.

If Axe is right, then the new proteins needed for evolutionary development are each individually potential defeaters for the theory of evolution.



Top-Ten-Problems-with-Biological-Chemical-Evolution-Casey-Luskin.pdf (19-20) <a href="https://www.discovery.org/a/24041/">https://www.discovery.org/a/24041/</a> The below is an excerpt from this document.

"A leading college-level biology textbook states that "even a slight change in primary structure can affect a protein's conformation and ability to function." 42 Likewise, evolutionary biologist David S. Goodsell writes:

[O]nly a small fraction of the possible combinations of amino acids will fold spontaneously into a stable structure. If you make a protein with a random sequence of amino acids, chances are that it will only form a gooey tangle when placed in water.43

Goodsell goes on to assert that "cells have perfected the sequences of amino acids over many years of evolutionary selection." But if functional protein sequences are rare, then it is likely that natural selection will be unable to take proteins from one functional genetic sequence to another without getting stuck in some maladaptive or non-beneficial intermediate stage.

The late biologist Lynn Margulis, a well-respected member of the National Academy of Sciences until her death in 2011, once said "new mutations don't create new species; they create offspring that are impaired." 44 She further explained in a 2011 interview:

[N]eo-Darwinists say that new species emerge when mutations occur and modify an organism. I was taught over and over again that the [Casey Luskin (begin page 20)]

accumulation of random mutations led to evolutionary change-led to new species. I believed it until I looked for evidence.45 Similarly, past president of the French Academy of Sciences, Pierre- Paul Grasse, contended that "[m]utations have a very limited 'constructive capacity' because "[n]o matter how numerous they may be, mutations do not produce any kind of evolution."46



This video is 7:51 long.

Continued next week...

