

Darwinian Evolution vs Mathematics - video

<https://www.youtube.com/watch?v=q3gyx70BHvA>

Paper:

https://docs.google.com/document/d/18WD6bF7fTqzJr4SsFxpklvluapkxGDfRbAPO1CLd_1U/e/dit

Peer-Reviewed Paper: "Neo-Darwinism Must Mutate to Survive"

Casey Luskin - March 15, 2023

Excerpt: A peer-reviewed paper published towards the end of last year in the Elsevier journal Progress in Biophysics and Molecular Biology has a provocative title:

"Neo-Darwinism Must Mutate to Survive." The paper's abstract opens with points that few would dispute:

"Darwinian evolution is a nineteenth century descriptive concept that itself has evolved. Selection by survival of the fittest was a captivating idea. Microevolution was biologically and empirically verified by discovery of mutations."

However, there then comes a major "but":

"There has been limited progress to the modern synthesis. The central focus of this perspective is to provide evidence to document that selection based on survival of the fittest is insufficient for other than microevolution."

And according to authors Olen R. Brown and David A. Hullender, just what is the basis for saying this? It's calculations showing that the likelihood of microevolutionary processes adding up to macroevolutionary changes is highly improbable:

"Realistic probability calculations based on probabilities associated with microevolution are presented. However, macroevolution (required for all speciation events and the complexifications appearing in the Cambrian explosion) are shown to be probabilistically highly implausible (on the order of 10⁻⁵⁰) when based on selection by survival of the fittest. We conclude that macroevolution via survival of the fittest is not salvageable by arguments for random genetic drift and other proposed mechanisms."

They go on to state, "We are critical, as previously explained, of the position that macroevolution is sufficiently explained by the processes useful for microevolution — in particular that mutations and survival of the fittest are adequate to the task," and argue that "Microevolution does not explain speciation — only smaller changes.",,,

They then perform a probability calculation which shows that the likelihood of producing a necessary pathway would require such multi-step processes leading to probabilities below the plausibility bound they had previously set.

Origin of the Krebs Cycle

They use a case study of the origin of the Krebs cycle — a metabolic pathway involving 12 enzymes that is necessary for life. They believe that this is a useful test for evolution. They assume that the genome is "ripe" to produce each enzyme where a minimal number of mutations is needed for a gene to suddenly become functional. They therefore choose an incredibly generous value of 0.00001 as the probability that a given enzyme can be created by a single mutation.

They calculate the likelihood of producing all 12 enzymes needed to produce a selectable function as 10⁻⁵¹. They note this is below 10⁻⁵⁰, a probability that was called "negligible" by Émile Borel, the French mathematician, who stated "this process of evolution involves certain properties of living matter that prevent us from asserting that the process was accomplished in accordance with the laws of chance."

They also reject co-option and exaptation as possible explanations for the origin of the Krebs cycle:

"The idea that the complete, functioning Krebs cycle arose by purloining each intermediate step from other uses (Meléndez-Hevia, 1996) lacks empirical support. The discoveries that genes can be switched on and off, that codes read forward and backward, gene duplication, and the homeobox, are helpful but inadequate to save evolutionary theory without modification."

In the end, producing a complex feature like the Krebs cycle is just too improbable because "Selection based on survival of the fittest, for anything beyond single mutational changes in a genome, is insufficient scientifically and biologically." They conclude, "there is something besides mutations and survival of the fittest needed to explain evolution."

<https://evolutionnews.org/2023/03/peer-reviewed-paper-neo-darwinism-must-mutate-to-survive/>

should be the very definition of a scientifically self-refuting worldview.

January 2020

<https://uncommondescent.com/intelligent-design/faith-even-mathematics-depends-on-some-unprovable-assumptions/#comment-690659>

Silver Asiatic, you may appreciate this as well:

<blockquote>

11. The Argument from Truth

Excerpt:

1. Our limited minds can discover eternal truths about being.
2. Truth properly resides in a mind.
3. But the human mind is not eternal.
4. Therefore there must exist an eternal mind in which these truths reside.

https://www.peterkreeft.com/topics-more/20_arguments-gods-existence.htm#11

</blockquote>

I think that argument fits hand in glove with Godel's incompleteness theorems as well as with what was discussed previously in post 5 about the human mind necessarily being immaterial.

Nov. 2022 - In short, the Christian Theist holds that, via Neoplatonic philosophy and Augustinian theology, that any mathematics that might describe this universe "are God's thoughts",

<https://uncommondescent.com/time/at-big-think-how-reality-is-shaped-by-the-speed-of-light/#comment-770030>

Nov. 2022 - But to go beyond what is intuitively, even blatantly, obvious, and to demonstrate exactly why it is impossible for material objects to 'apprehend', understand or perceive, immaterial objects.

<https://uncommondescent.com/human-exceptionalism/man-ape-chasm-of-differences/#comment-770608>

December 2020 - the existence of mathematics necessitates the existence of God and immaterial minds,,,

<https://uncommondescent.com/intelligent-design/can-we-have-an-honest-discussion-about-science-and-god/#comment-721355>

January 2021

<https://uncommondescent.com/intelligent-design/an-interview-on-god-and-mathematics/#comment-722846>

July 2021

<https://uncommondescent.com/intelligent-design/asked-at-reason-magazine-how-much-science-research-is-fraudulent/#comment-734531>

Darwinism vs. mathematics in a post-modern world - January 12, 2018

<https://uncommondescent.com/intelligent-design/darwinism-vs-mathematics-in-a-post-modern-world/>

Here is a bit more information on the relationship between nature and the 'platonic world' of mathematics

<https://uncommondescent.com/intelligent-design/darwinism-vs-mathematics-in-a-post-modern-world/#comment-648506>

All papers and videos referenced in this video may be accessed in the link provided in the video description.

Darwinian evolution and the world of mathematics are completely incompatible with each other. The main reason why Darwinian Evolution and Mathematics are completely incompatible with each other is that Darwinian evolution is based on a Naturalistic and/or Materialistic worldview in which it is held that **“only matter is real, that the world is just physical and that there is no supernatural (or metaphysical) existence, or that if there is, it has no impact on our physical world.,,,”**

What is the difference between naturalism and materialism?

Excerpt: **Naturalism** is the view that the world can be explained entirely by physical, natural phenomena/laws. Naturalists either assert **that there is no supernatural (or metaphysical) existence, or that if there is, it has no impact on our physical world.,,,**

Materialism is the related view that all existence is matter, that **only matter is real, and so that the world is just physical**. It simply describes a view on the nature of the universe, while the different branches of Naturalism focus on applications of effectively the same view.

Thus, the difference between the two is the purpose of the definition - materialism makes an argument about the ontology of the universe, while **naturalism takes a premise (effectively that of materialism) to make an argument on how science/philosophy should function.**

<https://philosophy.stackexchange.com/questions/2406/what-is-the-difference-between-naturalism-and-materialism>

That is to say that Darwinian evolution is based on a naturalistic and/or materialistic view of reality, called methodological naturalism, which holds that all possible scientific explanations for reality in general, and for biology in particular, are exhausted by purely natural and/or material explanations. The fatal flaw with presupposing methodological naturalism, as the following papers and video show, is that methodological naturalism denies the reality of agent causality right off the bat which is something that each of us experience first hand.

Methodological Naturalism: A Rule That No One Needs or Obeys - Paul Nelson - September 22, 2014,

Excerpt: methodological naturalism (MN). As (Stephen) Meyer defines MN:

"scientists should accept as a working assumption that all features of the natural world can be explained by material causes without recourse to purposive intelligence, mind, or conscious agency. (p. 19)"

https://evolutionnews.org/2014/09/methodological_1/

Do You Like SETI? Fine, Then Let's Dump Methodological Naturalism - Paul Nelson - September 24, 2014

Excerpt: **"Epistemology -- how we know -- and ontology -- what exists -- are both affected by methodological naturalism (MN). If we say, "We cannot know that a mind caused x," laying down an epistemological boundary defined by MN, then our ontology comprising real causes for x won't include minds.**

MN entails an ontology in which minds are the consequence of physics, and thus, can only be placeholders for a more detailed causal account in which physics is the only (ultimate) actor. You didn't write your email to me. Physics did, and informed you of that event after the fact.

"That's crazy," you reply, "I certainly did write my email." Okay, then -- to what does the pronoun "I" in that sentence refer?

Your personal agency; your mind. Are you supernatural?,,,

You are certainly an intelligent cause, however, and your intelligence does not collapse into physics. (If it does collapse -- i.e., can be reduced without explanatory loss -- we haven't the faintest idea how, which amounts to the same thing.) To explain the effects you bring about in the world -- such as your email, a real pattern -- we must refer to you as a unique agent.,,,

some feature of "intelligence" must be irreducible to physics, because otherwise we're back to physics versus physics, and there's nothing for SETI to look for.",,,

http://www.evolutionnews.org/2014/09/do_you_like_set090071.html

A Critique of Methodological Naturalism and Natural Selection - video

<https://www.youtube.com/watch?v=izyv7L-es8>

Paper:

<https://docs.google.com/document/d/1akC-YzIn5gXU48B1af0XQYtJbtpEK8o2MGf7kl6cSpQ/edit>

And where Darwinian evolution is based on a materialistic view of reality which denies that anything beyond nature exists, on the other hand, Mathematics, which provides the backbone for all of science, engineering and technology in the first place, as these following references indicate,,,

A VIEW OF MATHEMATICS - Alain Connes

Excerpt: Mathematics is the backbone of modern science and a remarkably efficient source of new concepts and tools to understand the "reality" in which we participate.,,,

<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.165.4778&rep=rep1&type=pdf>

How the Recent Discoveries Support a Designed Universe - Dr. Walter L. Bradley - paper

Excerpt: **Only in the 20th century have we come to fully understand that the incredibly diverse phenomena that we observe in nature are the outworking of a very small number of physical laws, each of which may be described by a simple mathematical relationship. Indeed, so simple in mathematical form and small in number are these physical laws that they can all be written on one side of one sheet of paper, as seen in Table 1.**

1. **Mechanics (Hamilton's Equations)**
2. **Electrodynamics (Maxwell's Equations)**
3. **Statistical Mechanics (Boltzmann's Equations)**
4. **Quantum Mechanics (Schrödinger's Equations)**
5. **General Relativity (Einstein's Equation)**

<http://www.leaderu.com/offices/bradley/docs/scievidence.html>

Mechanical Engineer

Excerpt: Math Required:

College Algebra, Geometry, Trigonometry, Calculus I and II, Linear Algebra, Differential Equations, Statistics,,,

<http://online2.byu.edu/?career=mechanical-engineer>

What is the relation between the mathematics and the engineering?

Excerpt: **An Engineer can be a Good and Successful Engineer, only if he is Good in Mathematics.**

https://www.researchgate.net/post/What_is_the_relation_between_the_mathematics_and_the_engineering

Describing Nature With Math By Peter Tyson – Nov. 2011

Excerpt: **Mathematics underlies virtually all of our technology today.** James Maxwell's four equations summarizing electromagnetism led directly to radio and all other forms of telecommunication. $E = mc^2$ led directly to nuclear power and nuclear weapons. The equations of quantum mechanics made possible everything from transistors and semiconductors to electron microscopy and magnetic resonance imaging.

Indeed, many of the technologies you and I enjoy every day simply would not work without mathematics. When you do a Google search, you're relying on 19th-century algebra, on which the search engine's algorithms are based. When you watch a movie, you may well be seeing mountains and other natural features that, while appearing as real as rock, arise entirely from mathematical models. When you play your iPod, you're hearing a mathematical recreation of music that is stored digitally; your cell phone does the same in real time.

"When you listen to a mobile phone, you're not actually hearing the voice of the person speaking," Devlin told me. "You're hearing a mathematical recreation of that voice. That voice is reduced to mathematics."

<http://www.pbs.org/wgbh/nova/physics/describing-nature-math.html>

,,, **Mathematics itself** exists in a transcendent, beyond space and time realm, a realm which simply is not reducible to any possible material explanation. This transcendent mathematical realm has been referred to as a Platonic mathematical world.

Nov. 2019

<https://uncommondescent.com/intelligent-design/new-book-by-david-berlinski-challenges-the-darwinian-view-of-progress/#comment-687731>

Platonic mathematical world - image

http://abyss.uoregon.edu/~js/images/platonic_physical.gif

Of related note:

Naturalism and Self-Refutation – Michael Egnor – January 31, 2018

Excerpt: Mathematics is certainly something we do. Is mathematics “included in the space-time continuum [with] basic elements ... described by physics”?,,, What is the physics behind the Pythagorean theorem? After all, no actual triangle is perfect, and thus no actual triangle in nature has sides such that the Pythagorean theorem holds. There is no real triangle in which the sum of the squares of the sides exactly equals the square of the hypotenuse. That holds true for all of geometry. Geometry is about concepts, not about anything in the natural world or about anything that can be described by physics. What is the “physics” of the fact that the area of a circle is pi multiplied by the square of the radius? And of course what is natural and physical about imaginary numbers, infinite series, irrational numbers, and the mathematics of more than three spatial dimensions? Mathematics is entirely about concepts, which have no precise instantiation in nature,,,

Furthermore, the very framework of Clark’s argument — logic — is neither material nor natural. Logic, after all, doesn’t exist “in the space-time continuum” and isn’t described by physics. What is the location of modus ponens? How much does Gödel’s incompleteness theorem weigh? What is the physics of non-contradiction? How many millimeters long is Clark’s argument for naturalism? Ironically the very logic that Clark employs to argue for naturalism is outside of any naturalistic frame.

The strength of Clark’s defense of naturalism is that it is an attempt to present naturalism’s tenets clearly and logically. That is its weakness as well, because it exposes naturalism to scrutiny, and naturalism cannot withstand even minimal scrutiny. Even to define naturalism is to refute it.

<https://evolutionnews.org/2018/01/naturalism-and-self-refutation/>

Nov. 2022 - But to go beyond what is intuitively, even blatantly, obvious, and to demonstrate exactly why it is impossible for material objects to ‘apprehend’, understand or perceive, immaterial objects.

<https://uncommondescent.com/human-exceptionalism/man-ape-chasm-of-differences/#comment-770608>

Of related interest to this notion of ‘perfect’ geometric objects occupying a Platonic mathematical world,,,

Platonic mathematical world – image

http://abyss.uoregon.edu/~js/images/platonic_physical.gif

,,, Is this 'platonic' geometric object,,:

Artist's rendering of the amplituhedron, a newly discovered mathematical object resembling a multifaceted jewel in higher dimensions.

https://d2r55xnwy6nx47.cloudfront.net/uploads/2013/09/amplutihedron_2000.jpg

A Jewel at the Heart of Quantum Physics – September 17, 2013

Excerpt: Physicists have discovered a jewel-like geometric object that dramatically simplifies calculations of particle interactions and challenges the notion that space and time are fundamental components of reality.,,,

Interactions that were previously calculated with mathematical formulas thousands of terms long can now be described by computing the volume of the corresponding jewel-like "amplituhedron," which yields an equivalent one-term expression.

"The degree of efficiency is mind-boggling," said Jacob Bourjaily, a theoretical physicist at Harvard University and one of the researchers who developed the new idea. "You can easily do, on paper, computations that were infeasible even with a computer before." ,,,

The amplituhedron, or a similar geometric object, could help by removing two deeply rooted principles of physics: locality and unitarity.,,,

Locality is the notion that particles can interact only from adjoining positions in space and time.,,,

The amplituhedron is not built out of space-time and probabilities; these properties merely arise as consequences of the jewel's geometry. The usual picture of space and time, and particles moving around in them, is a construct.

"It's a better formulation that makes you think about everything in a completely different way," said David Skinner, a theoretical physicist at Cambridge University.,,,

The amplituhedron itself does not describe gravity. But Arkani-Hamed and his collaborators think there might be a related geometric object that does.,,,

But the new amplituhedron research suggests space-time, and therefore dimensions, may be illusory anyway.,,, Even without unitarity and locality, the amplituhedron formulation of quantum field theory does not yet incorporate gravity. But researchers are working on it.,,,

Beyond making (quantum field theory) calculations easier or possibly leading the way to quantum gravity, the discovery of the amplituhedron could cause an even more profound shift, Arkani-Hamed said. That is, giving up space and time as fundamental constituents of nature and figuring out how the Big Bang and cosmological evolution of the universe arose out of pure geometry.

<https://www.simonsfoundation.org/quanta/20130917-a-jewel-at-the-heart-of-quantum-physics/>

Quote:

"Geometry is unique and eternal, a reflection from the mind of God. That mankind shares in it is because man is an image of God."

– Johannes Kepler (1571-1630) quoted from his book *Harmonices Mundi*:

As the following article points out, **'Mathematical platonism enjoys widespread support and is frequently considered the default metaphysical position with respect to mathematics.,,,**

and that **arguments for mathematical platonism typically assert,, that mathematical entities are not constituents of the spatio-temporal realm.'**

Mathematical Platonism

Excerpt: **Mathematical platonism enjoys widespread support and is frequently considered the default metaphysical position with respect to mathematics.** This is unsurprising given its extremely natural interpretation of mathematical practice. In particular, mathematical platonism takes at face-value such well known truths as that "there exist" an infinite number of prime numbers, and it provides straightforward explanations of mathematical objectivity and of the differences between mathematical and spatio-temporal entities. Thus **arguments for mathematical platonism typically assert** that in order for mathematical theories to be true their logical structure must refer to some mathematical entities, that many mathematical theories are indeed objectively true, and **that mathematical entities are not constituents of the spatio-temporal realm.**

<http://www.iep.utm.edu/mathplat/>

I'd say math exist - Antoine Bret

Excerpt: Alain Connes, Fields Medalist 1982, is also worth quoting here [3]:

"Two extreme viewpoints are opposed in relation to mathematical activity. The first, to which I completely subscribe, is of Platonic inspiration: it postulates that there exists a mathematical reality, raw, primitive, which predates its discovery. A world which exploration requires the creation of tools, as it was necessary to invent vessels to cross the oceans. The second viewpoint is the one of the formalists; they deny any preexistence to mathematics, believing that they are a formal game, based on axioms and logical deductions, thus a pure human creation."

Then he adds,

"This viewpoint seems more natural to the non-mathematician, who refuses to postulate an unknown world of which he has no perception. People understand that mathematics is a language, but not that it is a reality external to the human spirit. The great discoveries of the twentieth century, especially the works of Gödel, have shown that the formalist viewpoint is not tenable. Whatever the exploratory medium, the formal system used, there will always be mathematical truths that will elude it, and mathematical reality cannot be reduced to the logical consequences of a formal system."

<https://antoinebretblog.wordpress.com/2019/09/10/id-say-math-exist/>

Antoine Bret - PhD Physics - Associate Professor Universidad Castilla La Mancha - On his personal page Dr Bret states that "I'm a Christian and a Physicist."

<https://antoinebretblog.wordpress.com/about-me/>

Simply put, Mathematics itself, (as well as logic itself). contrary to the materialistic presuppositions of Darwinists, **does not need the physical world** in order to exist. And yet Darwinian materialists, although they deny that anything beyond the material realm exists, need this transcendent world of mathematics in order for their theory to be considered scientific in the first place. The predicament that Darwinists find themselves in regards to denying the objective reality of this transcendent, immaterial, world of mathematics, and yet needing validation from this transcendent, immaterial, world of mathematics in order to be considered scientific, should be the very definition of a scientifically self-refuting worldview.

January 2020

<https://uncommondescent.com/intelligent-design/faith-even-mathematics-depends-on-some-unprovable-assumptions/#comment-690659>

What Does It Mean to Say That Science & Religion Conflict? - M. Anthony Mills - April 16, 2018

Excerpt: Barr rightly observes that scientific atheists often unwittingly assume not just metaphysical naturalism but an even more controversial philosophical position: reductive materialism, which says all that exists is or is reducible to the material constituents postulated by our most fundamental physical theories.

As Barr points out, this implies not only that God does not exist — because God is not material — but that you do not exist. For you are not a material constituent postulated by any of our most fundamental physical theories; at best, you are an aggregate of those constituents, arranged in a particular way. Not just you, but tables, chairs, countries, countrymen, symphonies, jokes, legal contracts, moral judgments, and acts of courage or cowardice — all of these must be fully explicable in terms of those more fundamental, material constituents.

In fact, more problematic for the materialist than the non-existence of persons is the existence of mathematics. Why? Although a committed materialist might be perfectly willing to accept that you do not really exist, he will have a harder time accepting that numbers do not exist. The trouble is that numbers — along with other mathematical entities such as classes, sets, and functions — are indispensable for modern science. And yet — here's the rub — these “abstract objects” are not material. Thus, one cannot take science as the only sure guide to reality and at the same time discount disbelief in all immaterial realities.

https://www.realclearreligion.org/articles/2018/04/16/what_does_it_mean_to_say_that_science_and_religion_conflict.html

Dr. Ed Feser - The Immateriality of the Intellect - video

Excerpt:

1: Formal thought processes can have an exact or unambiguous conceptual content.

However,

2: Nothing material can have an exact or unambiguous conceptual content.

So,

3: Formal thought processes are not material.

<https://www.youtube.com/watch?v=fNi0j19ZSpo>

KEEP IT SIMPLE by Edward Feser - April 2020

Excerpt: Mathematics appears to describe a realm of entities with quasi-divine attributes. The series of natural numbers is infinite. That one and one equal two and two and two equal four could not have been otherwise. Such mathematical truths never begin being true or cease being true; they hold eternally and immutably. The lines, planes, and figures studied by the geometer have a kind of perfection that the objects of our experience lack. Mathematical objects seem immaterial and known by pure reason

rather than through the senses. Given the centrality of mathematics to scientific explanation, it seems in some way to be a cause of the natural world and its order. How can the mathematical realm be so apparently godlike? The traditional answer, originating in Neoplatonic philosophy and Augustinian theology, is that our knowledge of the mathematical realm is precisely knowledge, albeit inchoate, of the divine mind. Mathematical truths exhibit infinity, necessity, eternity, immutability, perfection, and immateriality because they are God's thoughts, and they have such explanatory power in scientific theorizing because they are part of the blueprint implemented by God in creating the world. For some thinkers in this tradition, mathematics thus provides the starting point for an argument for the existence of God qua supreme intellect.

<https://www.firstthings.com/article/2020/04/keep-it-simple>

Aquinas and Newton, (Plato, Aristotle) Aquinas's formulation of Neo-Platonism) - Stephen Meyer - 28 minute mark

<https://youtu.be/SdiThL6ZCMQ?t=1703>

Mathematics Can Prove the Existence of God - Michael Egnor - July 2022

Excerpt: The solution proposed by Augustine (and many other philosophers and theologians, most notably Gottfried Wilhelm Leibniz) is called scholastic realism. Scholastic realism posits that God's Mind is the Platonic realm of Forms. Augustine proposed that universals such as numbers, mathematics in general, propositions, logic, necessities and possibilities exist in the Divine Intellect, which is infinite and eternal. What's remarkable about the reality of universals as proof for God's existence is that it points in a simple and clear way to some of God's attributes, such as infinity, eternity, and omnipotence. To see how, consider again the set of natural numbers, which is infinite. Therefore:

- The Mind that contains them must itself be infinite.
- Because the Mind in which natural numbers exists is infinite, it is also omnipotent. Limitations on power are finite and are inconsistent with an infinite Mind.
- Because numbers exist independently of the material universe, they are eternal (e.g., the truth that $1+1=2$ is independent of time) and thus the Mind that contains them is eternal.

I find the Augustinian Proof of God's existence via the reality of universals in the Divine Mind a compelling proof. It is a highly satisfying and an even beautiful concept — our abstract thoughts have a real existence in the Mind of our Creator, and we, who are created in His image, participate in His thoughts.

<https://mindmatters.ai/2022/07/mathematics-can-prove-the-existence-of-god/>

August 2022 - Thus, St. Augustine's claim that mathematics has a contingent existence that is dependent upon the Mind of God is born out rather dramatically via Godel's incompleteness theorems. In short, the Augustinian Proof of God's existence, despite what anyone's personal opinion may be, is now to be considered, by all rights, mathematically, and logically, 'compelling'.

<https://uncommondescent.com/philosophy/127166/#comment-762157>

"Every number is defined by its own character so that no number is equal to any other. They are unequal to one another and are different, and the individual numbers are finite, but as a class they are infinite. Does that mean that God does not know all numbers,

because of their infinity? Does God's knowledge extend as far as a certain sum, and end there? No one could be insane enough to say that.

Now those philosophers who revere the authority of Plato will not despise numbers and say that they are irreverent to God's knowledge, For Plato emphasizes that God constructed the world by use of numbers, while we have the authority of Scripture, where God is thus addressed, "You have set all things in order all things by number, measure, and weight." And the prophet says of God, "He produces the world according to number". And the Savior says in the Gospel, "Your hairs are all numbered".

Never let us doubt then that every number is known to him "whose understanding cannot be numbered". Although the infinite series of numbers cannot be numbered, this infinity of numbers is not outside the comprehension of him "whose understanding cannot be numbered".

– St. Augustine – "City of God" – 12th Book, 19th Chapter

– Infinity: Aristotle, St. Augustine, Cantor, Gödel – video – 31:29 minute mark

<https://youtu.be/SMt2VtjMfrU?t=1889>

How to Celebrate Pi Day? The Intelligent Design Way - March 14, 2017

Excerpt: ,, **Mathematics does not need the physical world,, "The naïve interpretation that mathematics comes from physical reality just doesn't work. The other interpretation that mathematics is a product of the human mind also has serious issues, because it seems clear that some of these concepts transcend any specific individual."**

Now meditate on what Nobel Prize-winning physicist Eugene Wigner writes in a famous essay, "The Unreasonable Effectiveness of Mathematics in the Natural Sciences." He says about math and evolution:

"The great mathematician fully, almost ruthlessly, exploits the domain of permissible reasoning and skirts the impermissible. That his recklessness does not lead him into a morass of contradictions is a miracle in itself: certainly it is hard to believe that our reasoning power was brought, by Darwin's process of natural selection, to the perfection which it seems to possess."

<https://www.evolutionnews.org/2017/03/how-to-celebrate-pi-day-the-intelligent-design-way/>

Naturalism and Self-Refutation - Michael Egnor - January 31, 2018

Excerpt: **Mathematics is certainly something we do. Is mathematics "included in the space-time continuum [with] basic elements ... described by physics"? It seems a stretch. What is the physics behind the Pythagorean theorem? After all, no actual triangle is perfect, and thus no actual triangle in nature has sides such that the Pythagorean theorem holds. There is no real triangle in which the sum of the squares of the sides *exactly* equals the square of the hypotenuse. That holds true for all of geometry. Geometry is about concepts, not about anything in the natural world or about anything that can be described by physics. What is the "physics" of the fact that the area of a circle is pi multiplied by the square of the radius? And of course what is natural and physical about imaginary numbers, infinite series, irrational numbers, and the mathematics of more than three spatial dimensions? Mathematics is entirely about concepts, which have no precise instantiation in nature as described by physics.,,,**

Furthermore, the very framework of Clark's argument — logic — is neither material nor natural. Logic, after all, doesn't exist "in the space-time continuum" and isn't described by physics. What is the location of modus ponens? How much does Gödel's incompleteness theorem weigh? What is the physics of non-contradiction? How many millimeters long is Clark's argument for naturalism? Ironically the very logic that Clark employs to argue for naturalism is outside of any naturalistic frame.

The strength of Clark's defense of naturalism is that it is an attempt to present naturalism's tenets clearly and logically. That is its weakness as well, because it exposes naturalism to scrutiny, and naturalism cannot withstand even minimal scrutiny. Even to define naturalism is to refute it.

<https://evolutionnews.org/2018/01/naturalism-and-self-refutation/>

The Great Debate: Does God Exist? - Justin Holcomb - audio of the 1985 Greg Bahnsen debate available at the bottom of the site

Excerpt: When we go to look at the different world views that atheists and theists have, I suggest we can prove the existence of God from the impossibility of the contrary.

The transcendental proof for God's existence is that without Him it is impossible to prove anything. The atheist worldview is irrational and cannot consistently provide the preconditions of intelligible experience, science, logic, or morality.

The atheist worldview cannot allow for laws of logic, the uniformity of nature, the ability for the mind to understand the world, and moral absolutes. In that sense the atheist worldview cannot account for our debate tonight.,,,

<http://justinholcomb.com/2012/01/17/the-great-debate-does-god-exist/>

As David Berlinski states in the following article, "**There is no argument against religion that is not also an argument against mathematics. Mathematicians are capable of grasping a world of objects that lies beyond space and time.... The number four, after all, did not come into existence at a particular time, and it is not going to go out of existence at another time. It is neither here nor there. Nonetheless we are in some sense able to grasp the number by a faculty of our minds. Mathematical intuition is utterly mysterious. So for that matter is the fact that mathematical objects such as a Lie Group or a differentiable manifold have the power to interact with elementary particles or accelerating forces. But these are precisely the claims that theologians have always made as well – that human beings are capable by an exercise of their devotional abilities to come to some understanding of the deity; and the deity, although beyond space and time, is capable of interacting with material objects.**"

An Interview with David Berlinski - Jonathan Witt

Berlinski: **There is no argument against religion that is not also an argument against mathematics. Mathematicians are capable of grasping a world of objects that lies beyond space and time....**

Interviewer:... Come again(?) ...

Berlinski: No need to come again: I got to where I was going the first time. **The number four, after all, did not come into existence at a particular time, and it is not going to go out of existence at another time. It is neither here nor there. Nonetheless we are in some sense able to grasp the number by a faculty of our minds.**

Mathematical intuition is utterly mysterious. So for that matter is the fact that mathematical objects such as a Lie Group or a differentiable manifold have the power to interact with elementary particles or accelerating forces. But these are precisely the claims that theologians have always made as well – that human beings are capable by an exercise of their devotional abilities to come to some understanding of the deity; and the deity, although beyond space and time, is capable of interacting with material objects.

<http://tofspot.blogspot.com/2013/10/found-upon-web-and-reprinted-here.html>

Lie group

Excerpt: In mathematics, a Lie group /'li:/ is a group that is also a differentiable manifold, with the property that the group operations are compatible with the smooth structure.,,, Lie groups represent the best-developed theory of continuous symmetry of mathematical objects and structures, which makes them indispensable tools for many parts of contemporary mathematics, as well as for modern theoretical physics.

http://en.wikipedia.org/wiki/Lie_group

LIE GROUPS IN PHYSICS - 2007

<http://www.staff.science.uu.nl/~hooft101/lectures/lieg07.pdf>

Recognising Top-Down Causation - George Ellis, University of Cape Town

Excerpt page 3 and 4: Quantum Physics

Top down effects occur in the context of quantum physics too[5].

Here are some examples:

Band Structure:,,,

Caldeira-Leggett model:,,,

State vector preparation:,,,

http://fqxi.org/data/essay-contest-files/Ellis_FQXI_Essay_Ellis_2012.pdf

To further back up Berlinski's claim that **mathematical objects have the power to interact with elementary particles**, it has now been shown that immaterial information has a thermodynamic content and that immaterial information is its own distinct entity that is separate from matter and energy. A distinct physical entity that, in spite of being immaterial, does indeed have the power to interact with matter and energy. Here are a few references that drive this point home.

Information is Physical (but not how Rolf Landauer meant) - video

<https://www.youtube.com/watch?v=H35I83y5Uro>

paper:

https://docs.google.com/document/d/10cvE9DEkrTw3RGJzh2B_pD-6AQoXvQ3EtuSx5GA4Ihc/edit

Demonic device converts information to energy – 2010

Excerpt: **“This is a beautiful experimental demonstration that information has a thermodynamic content,”** says Christopher Jarzynski, a statistical chemist at the University of Maryland in College Park. In 1997, Jarzynski formulated an equation to define the amount of energy that could theoretically be converted from a unit of information²; the work by Sano and his team has now confirmed this equation. “This tells

us something new about how the laws of thermodynamics work on the microscopic scale,” says Jarzynski.

<http://www.scientificamerican.com/article.cfm?id=demonic-device-converts-inform>

Information: From Maxwell’s demon to Landauer’s eraser – Lutz and Ciliberto – Oct. 25, 2015 – Physics Today

Excerpt: The above examples of gedanken-turned-real experiments provide a firm empirical foundation for the physics of information and tangible evidence of the intimate connection between information and energy. They have been followed by additional experiments and simulations along similar lines.¹² (See, for example, Physics Today, August 2014, page 60.) Collectively, that body of experimental work further demonstrates the equivalence of information and thermodynamic entropies at thermal equilibrium.,,,

(2008) Sagawa and Ueda’s (theoretical) result extends the second law to explicitly incorporate information; **it shows that information, entropy, and energy should be treated on equal footings.**

<http://www.johnboccio.com/research/quantum/notes/Information.pdf>

J. Parrondo, J. Horowitz, and T. Sagawa. Thermodynamics of information. Nature Physics, 11:131-139, 2015.

Matter, energy... knowledge: - May 11, 2016

Running a brain-twisting thought experiment for real shows that information is a physical thing – so can we now harness the most elusive entity in the cosmos?

<https://www.newscientist.com/article/mg23030730-200-demon-no-more-physics-most-elusive-entity-gives-up-its-secret/>

New Scientist astounds: Information is physical – May 13, 2016

Excerpt: **Recently came the most startling demonstration yet: a tiny machine powered purely by information**, which chilled metal through the power of its knowledge. This seemingly magical device could put us on the road to new, more efficient nanoscale machines, a better understanding of the workings of life, and a more complete picture of perhaps our most fundamental theory of the physical world.

<http://www.uncommondescent.com/news/new-scientist-astounds-information-is-physical/>

Information engine operates with nearly perfect efficiency - Lisa Zyga - January 19, 2018

Excerpt: **Physicists have experimentally demonstrated an information engine—a device that converts information into work—with an efficiency that exceeds the conventional second law of thermodynamics. Instead, the engine’s efficiency is bounded by a recently proposed generalized second law of thermodynamics, and it is the first information engine to approach this new bound.,,,**

The generalized second law of thermodynamics states that the work extracted from an information engine is limited by the sum of two components: the first is the free energy difference between the final and initial states (this is the sole limit placed on conventional engines by the conventional second law), and the other is the amount of available information (this part sets an upper bound on the extra work that can be extracted from information).

To achieve the maximum efficiency set by the generalized second law, the researchers in the new study designed and implemented an information engine made of a particle

trapped by light at room temperature. Random thermal fluctuations cause the tiny particle to move slightly due to Brownian motion, and a photodiode tracks the particle's changing position with a spatial accuracy of 1 nanometer. If the particle moves more than a certain distance away from its starting point in a certain direction, the light trap quickly shifts in the direction of the particle. This process repeats, so that over time the engine transports the particle in a desired direction simply by extracting work from the information it obtains from the system's random thermal fluctuations (the free energy component here is zero, so it does not contribute to the work extracted). One of the most important features of this system is its nearly instantaneous feedback response: the trap shifts in just a fraction of a millisecond, giving the particle no time to move further and dissipate energy. As a result, almost none of the energy gained by the shift is lost to heat, but rather nearly all of it is converted into work. By avoiding practically any information loss, the information-to-energy conversion of this process reaches approximately 98.5% of the bound set by the generalized second law. The results lend support for this bound, and illustrate the possibility of extracting the maximum amount of work possible from information.

<https://phys.org/news/2018-01-efficiency.html>

What is information? - animated video (May 2016)

Quote: **“If information is not (physically) real then neither are we”**

<https://www.youtube.com/watch?v=2AvIOzVJMCM>

In the following article, George Ellis argues for the Causal Efficacy of Non Physical entities. Of particular interest is his argument for the causal efficacy of computer programs.

Recognising Top-Down Causation – George Ellis

Excerpt: page 5: A: Causal Efficacy of Non Physical entities:

Both the program and the data are non-physical entities, indeed so is all software. A program is not a physical thing you can point to, but by Definition 2 it certainly exists. You can point to a CD or flashdrive where it is stored, but that is not the thing in itself: it is a medium in which it is stored.

The program itself is an abstract entity, shaped by abstract logic. Is the software “nothing but” its realisation through a specific set of stored electronic states in the computer memory banks? No it is not because it is the precise pattern in those states that matters: a higher level relation that is not apparent at the scale of the electrons themselves. It’s a relational thing (and if you get the relations between the symbols wrong, so you have a syntax error, it will all come to a grinding halt). This abstract nature of software is realised in the concept of virtual machines, which occur at every level in the computer hierarchy except the bottom one [17]. But this tower of virtual machines causes physical effects in the real world, for example when a computer controls a robot in an assembly line to create physical artefacts.

Excerpt page 7: **The assumption that causation is bottom up only is wrong in biology, in computers, and even in many cases in physics, ,,,**

The mind is not a physical entity, but it certainly is causally effective: proof is the existence of the computer on which you are reading this text. It could not exist if it had not been designed and manufactured according to someone’s plans, thereby

proving the causal efficacy of thoughts, which like computer programs and data are not physical entities.

http://fqxi.org/data/essay-contest-files/Ellis_FQXI_Essay_Ellis_2012.pdf

Although the preceding evidence is certainly very strong evidence for the physical reality of immaterial information, the coup de grace for demonstrating that immaterial information is its own distinct physical entity that is separate from matter and energy, is Quantum Teleportation where it is shown that **the photons aren't disappearing from one place and appearing in another. Instead, it's the information that's being teleported through quantum entanglement.,,,**

Quantum Teleportation Enters the Real World – September 19, 2016

Excerpt: Two separate teams of scientists have taken quantum teleportation from the lab into the real world.

Researchers working in Calgary, Canada and Hefei, China, used existing fiber optics networks to transmit small units of information across cities via quantum entanglement — Einstein's "spooky action at a distance." ,,,

This isn't teleportation in the "Star Trek" sense — **the photons aren't disappearing from one place and appearing in another. Instead, it's the information that's being teleported through quantum entanglement.,,,**

,,, it is only the information that gets teleported from one place to another.

<http://blogs.discovermagazine.com/d-brief/2016/09/19/quantum-teleportation-enters-real-world/#.V-HqWNEoDtR>

image:

<https://nteb-mudflowermedia.netdna-ssl.com/wp-content/uploads/2017/07/quantum-teleportation-scientists-teleport-photon-outer-space-orbit-933x445.jpg>

And although some mathematicians who are of the atheistic persuasion may be tempted to believe that this transcendent Platonic mathematical world can exist without God, yet, due to Gödel's incompleteness theorem, and as these following references make clear, they would be wrong to believe that.

A BIBLICAL VIEW OF MATHEMATICS

Vern Poythress - Doctorate in theology, PhD in Mathematics (Harvard)

15. Implications of Gödel's proof

B. Metaphysical problems of anti-theistic mathematics: unity and plurality

Excerpt: **Because of the above difficulties, anti-theistic philosophy of mathematics is condemned to oscillate, much as we have done in our argument, between the poles of a priori knowledge and a posteriori knowledge. Why? It will not acknowledge the true God, wise Creator of both the human mind with its mathematical intuition and the external world with its mathematical properties. In sections 22-23 we shall see how the Biblical view furnishes us with a real solution to the problem of "knowing" that $2 + 2 = 4$ and knowing that S is true.**

<http://www.frame-poythress.org/a-biblical-view-of-mathematics/>

Taking God Out of the Equation - Biblical Worldview - by Ron Tagliapietra - January 1, 2012

Excerpt: **Kurt Gödel (1906–1978) proved that no logical systems (if they include the counting numbers) can have all three of the following properties.**

- 1. Validity ... all conclusions are reached by valid reasoning.**
- 2. Consistency ... no conclusions contradict any other conclusions.**
- 3. Completeness ... all statements made in the system are either true or false.**

The details filled a book, but the basic concept was simple and elegant. He (Gödel) summed it up this way: “Anything you can draw a circle around cannot explain itself without referring to something outside the circle—something you have to assume but cannot prove.” For this reason, his proof is also called the Incompleteness Theorem.

Kurt Gödel had dropped a bomb on the foundations of mathematics. Math could not play the role of God as infinite and autonomous. It was shocking, though, that logic could prove that mathematics could not be its own ultimate foundation. Christians should not have been surprised. The first two conditions are true about math: it is valid and consistent. But only God fulfills the third condition. Only He is complete and therefore self-dependent (autonomous). God alone is “all in all” (1 Corinthians 15:28), “the beginning and the end” (Revelation 22:13). God is the ultimate authority (Hebrews 6:13), and in Christ are hidden all the treasures of wisdom and knowledge (Colossians 2:3).

<http://www.answersingenesis.org/articles/am/v7/n1/equation>

Even Stephen Hawking himself in his book 'The Grand Design', where he sought to find a mathematical theory of everything, reluctantly conceded in that book that **“Gödel's incompleteness theorem (1931), proves that there are limits to what can be ascertained by mathematics.”**

“Gödel's incompleteness theorem (1931), proves that there are limits to what can be ascertained by mathematics. Kurt Gödel (ref. on cite), halted the achievement of a unifying all-encompassing theory of everything in his theorem that: “Anything you can draw a circle around cannot explain itself without referring to something outside the circle—something you have to assume but cannot prove”. Thus, based on the position that an equation cannot prove itself, the constructs are based on assumptions some of which will be unprovable.”

Cf., Stephen Hawking & Leonard Miodinow, The Grand Design (2010) @ 15-6
<https://books.google.com/books?id=7MzOBAAAQBAJ&pg=PA536#v=onepage&q&f=false>

The following article puts the implications of Gödel's incompleteness theorem for mathematics more clearly as such, **'we cannot construct an ontology that makes God dispensable. Secularists can dismiss this as a mere exercise within predefined rules of the game of mathematical logic, but that is sour grapes, for it was the secular side that hoped to substitute logic for God in the first place. Gödel's critique of the continuum hypothesis has the same implication as his incompleteness theorems: Mathematics never will create the sort of closed system that sorts reality into neat boxes.**

Excerpt: we cannot construct an ontology that makes God dispensable. Secularists can dismiss this as a mere exercise within predefined rules of the game of mathematical logic, but that is sour grapes, for it was the secular side that hoped to substitute logic for God in the first place. Gödel's critique of the continuum hypothesis has the same implication as his incompleteness theorems: Mathematics never will create the sort of closed system that sorts reality into neat boxes.

<http://www.firstthings.com/article/2010/08/the-god-of-the-mathematicians>

,,, Kurt Gödel himself stated, "In materialism all elements behave the same. It is mysterious to think of them as spread out and automatically united. For something to be a whole, it has to have an additional object, say, a soul or a mind." ,,,

"In materialism all elements behave the same. It is mysterious to think of them as spread out and automatically united. For something to be a whole, it has to have an additional object, say, a soul or a mind." ,,,

Kurt Gödel – Hao Wang's supplemental biography of Gödel, A Logical Journey, MIT Press, 1996. [9.4.12]

<http://kevincarmody.com/math/goedel.html>

Moreover, besides mathematics being incomplete, and as Dr. Bruce Gordon points out in the following article, the evidence from cosmology and quantum mechanics now also proves that the physical universe is itself also causally incomplete. Specifically he states, **'The physical universe is causally incomplete and therefore neither self-originating nor self-sustaining.** And he also states that **'the world of space, time, matter and energy is dependent on a reality that transcends space, time, matter and energy.**

This transcendent reality cannot merely be a Platonic realm of mathematical descriptions, for such things are causally inert abstract entities that do not affect the material world,,,

Rather, the transcendent reality on which our universe depends must be something that can exhibit agency – a mind that can choose among the infinite variety of mathematical descriptions and bring into existence a reality that corresponds to a consistent subset of them. This is what "breathes fire into the equations and makes a universe for them to describe."

BRUCE GORDON: Hawking's irrational arguments – October 2010

Excerpt: **,,,The physical universe is causally incomplete and therefore neither self-originating nor self-sustaining. The world of space, time, matter and energy is dependent on a reality that transcends space, time, matter and energy.**

This transcendent reality cannot merely be a Platonic realm of mathematical descriptions, for such things are causally inert abstract entities that do not affect the material world,,,

Rather, the transcendent reality on which our universe depends must be something that can exhibit agency – a mind that can choose among the infinite variety of mathematical descriptions and bring into existence a reality that corresponds to a consistent subset of them. This is what "breathes fire into the equations and makes a universe for them to describe." Anything else invokes random miracles as an explanatory principle and spells the end of scientific rationality.

<http://www.washingtontimes.com/news/2010/oct/1/hawking-irrational-arguments/>

And in the following article and video, Dr. Bruce Gordon goes into much more detail and gives an excellent defense of the specific scientific evidences from cosmology and quantum mechanics which now clearly demonstrate that **the reality we inhabit** (does indeed) **bear the hallmark of transcendent intelligent causation**,

Divine Action and the World of Science: What Cosmology and Quantum Physics Teach Us about the Role of Providence in Nature - Bruce L. Gordon - 2017

Excerpt of Introduction: **So does the reality we inhabit bear the hallmarks of transcendent intelligent causation, and does scientific investigation lead us to its discovery? In a word, yes.**

It is the purpose of this essay to show how the evidence from cosmology and quantum physics enables us to infer it. 5,,,

<http://jbtsonline.org/wp-content/uploads/2017/11/JBTS-2.2-Article-7.compressed.pdf>

Divine Action and the World of Science: What Cosmology and Quantum Physics Teach Us about the Role of Providence in Nature - Bruce L. Gordon - 2017

Excerpt page 292: Even if necessitarian accounts of physical law were not philosophically intractable, however, they would still be empirically false on quantum-mechanical grounds. All of them require that physical systems and material objects objectively possess properties that are capable of being connected together in a law-like fashion.

At a minimum, necessitarian theorists have to maintain that quantum systems, or their components, objectively possess properties prior to measurement, whether these properties are determinate or indeterminate (probabilified dispositions), and that it is the objective possession of these properties that necessitates (or renders probable) their specific behavior.,,,

,,, there are no objective physical properties at the quantum level in which to ground necessitarian relations, and no emergentist or supervenience account of material identity that would provide a substantial foundation for macroscopic necessitarianism. So necessitarian theories of natural law cannot gain a foothold in fundamental physical theory and must be set aside.,,,

<http://jbtsonline.org/wp-content/uploads/2017/11/JBTS-2.2-Article-7.compressed.pdf>

The Incompatibility of Physicalism with Physics: A Conversation with Dr. Bruce Gordon - video

<https://www.youtube.com/watch?v=wk-UO81HmO4>

Darwinists, since they presuppose reductive materialism to be true, simply have no explanation for why the entire physical universe should be **dependent on a reality that transcends space, time, matter and energy**. Nor do they have any clue for why the entire physical universe should itself be describable by a transcendent world of mathematics in the first place.,,,

Atheism Is a Catastrophe for Science - Michael Egnor - September 20, 2016

Excerpt: **Nature is governed by astonishingly complex and elegant physical laws, and the laws themselves are written in the language of abstract mathematics.** In

fact, theoretical physicists must often explore utterly new mathematical theories in order to explain the behavior of inanimate matter.

After all, Newton discovered calculus in order to do physics. Heaviside (using Maxwell's equations) needed to develop the calculus of electromagnetic oscillators to understand alternating current electricity. Einstein (and his friend the mathematician Grossman) reinvented non-Euclidean geometry and tensor calculus to understand relativity.

Heisenberg had to develop matrix mechanics to understand the quantum world. Dirac predicted the existence of anti-matter purely on the basis of mathematical considerations, and modern string theorists such as Edward Witten work at the cutting edge of mathematics. Black holes were predicted based on singularities in the tensor equations of relativity, and the Big Bang itself was discovered mathematically by Georges Lemaitre (a Catholic priest!) before it was detected empirically.

It is astonishing (and beautiful) that the very retinaculum of the universe, from the subatomic world to the cosmos, is drawn in elegant abstract mathematics. The universe screams intelligent authority.

http://www.evolutionnews.org/2016/09/atheism_is_a_ca103154.html

“I think that modern physics has definitely decided in favor of Plato. **In fact the smallest units of matter** are not physical objects in the ordinary sense; they are forms, ideas which **can be expressed unambiguously only in mathematical language.**”

- Werner Heisenberg - Das Naturgesetz und die Struktur der Materie (1967), as translated in Natural Law and the Structure of Matter (1981), p. 34

,,,Whereas, the Christian founders of modern science, on the other hand, expected to find mathematical laws in the universe since **they believed in a lawgiver.**

The God Particle: Not the God of the Gaps, But the Whole Show - John Lennox - Monday, Aug. 2012

Excerpt: **C. S. Lewis put it this way: "Men became scientific because they expected law in nature and they expected law in nature because they believed in a lawgiver."**

<http://www.christianpost.com/news/the-god-particle-not-the-god-of-the-gaps-but-the-whole-show-80307/>

Science and Theism: Concord, not Conflict* – Robert C. Koons

IV. The Dependency of Science Upon Theism (Page 21)

Excerpt: **Far from undermining the credibility of theism, the remarkable success of science in modern times is a remarkable confirmation of the truth of theism. It was from the perspective of Judeo-Christian theism—and from the perspective alone—that it was predictable that science would have succeeded as it has.**

Without the faith in the rational intelligibility of the world and the divine vocation of human beings to master it, modern science would never have been possible, and, even today, the continued rationality of the enterprise of science depends on convictions that can be reasonably grounded only in theistic metaphysics.

<http://www.robkoons.net/media/69b0dd04a9d2fc6dffff80b3ffffd524.pdf>

The Christian Origins of Science - Jack Kerwick - Apr 15, 2017

Excerpt: Though it will doubtless come as an enormous shock to such Christophobic atheists as Richard Dawkins, Sam Harris, and their ilk, it is nonetheless true that one especially significant contribution that Christianity made to the world is that of science.,,, Stark is blunt: “Real science arose only once: in Europe”—in Christian Europe. “China, Islam, India, and ancient Greece and Rome each had a highly developed alchemy. But only in Europe did alchemy develop into chemistry. By the same token, many societies developed elaborate systems of astrology, but only in Europe did astrology develop into astronomy.” ,,,

In summation, Stark writes: **“The rise of science was not an extension of classical learning. It was the natural outgrowth of Christian doctrine: nature exists because it was created by God. In order to love and honor God, it is necessary to fully appreciate the wonders of his handiwork. Because God is perfect, his handiwork functions in accord with immutable principles. By the full use of our God-given powers of reason and observation, it ought to be possible to discover these principles.”**

He concludes: “These were the crucial ideas that explain why science arose in Christian Europe and nowhere else.”

<https://townhall.com/columnists/jackkerwick/2017/04/15/the-christian-origins-of-science-2313593>

Here are a few quotes from some of the leading Christian founders of modern science which clearly show that they fully expected that they would find mathematical **laws in nature** since **they believed in a lawgiver**.

“To know the mighty works of God, to comprehend His wisdom and majesty and power, to appreciate, in degree, the wonderful working of His laws, surely all this must be a pleasing and acceptable mode of worship to the Most High, to whom ignorance cannot be more gratifying than knowledge.”

Nicolaus Copernicus (1473-1543), founder of Heliocentric Cosmology (Copernicus, as cited in Neff 1952, 191-192; and in Hubbard 1905, v).

<https://withalliamgod.wordpress.com/2010/12/15/nicolaus-copernicus-on-god/>

“Geometry is unique and eternal, a reflection from the mind of God. That mankind shares in it is because man is an image of God.”

– **Johannes Kepler** (1571-1630) quoted from his book *Harmonices Mundi*:

https://www.goodreads.com/author/quotes/79396.Johannes_Kepler

“Philosophy is written in that great book which ever lies before our eyes — I mean the universe — but we cannot understand it if we do not first learn the language and grasp the symbols, in which it is written. This book is written in the mathematical language, and the symbols are triangles, circles and other geometrical figures, without whose help it is impossible to comprehend a single word of it; without which one wanders in vain through a dark labyrinth.”

Galileo Galilei (1564-1642) - *The Assayer* (1623), as translated by Thomas Salusbury (1661), p. 178, as quoted in *The Metaphysical Foundations of Modern Science* (2003) by Edwin Arthur Burt, p. 75

<https://www.quora.com/Where-did-Galileo-say-Mathematics-is-the-language-with-which-God-has-written-the-universe>

“This most beautiful system of the sun, planets, and comets, could only proceed from the counsel and dominion of an intelligent and powerful Being. And if the fixed stars are the centres of other like systems, these, being formed by the like wise counsel, must be all subject to the dominion of One; especially since the light of the fixed stars is of the same nature with the light of the sun, and from every system light passes into all the other systems: and lest the systems of the fixed stars should, by their gravity, fall on each other mutually, he hath placed those systems at immense distances one from another. **This Being governs all things, not as the soul of the world, but as Lord over all; and on account of his dominion he is wont to be called Lord God pantokrator, or Universal Ruler;,,,** The Supreme God is a Being eternal, infinite, absolutely perfect;,,, from his true dominion it follows that the true God is a living, intelligent, and powerful Being; and, from his other perfections, that he is supreme, or most perfect. He is eternal and infinite, omnipotent and omniscient; that is, his duration reaches from eternity to eternity; his presence from infinity to infinity; he governs all things, and knows all things that are or can be done. He is not eternity or infinity, but eternal and infinite; he is not duration or space, but he endures and is present. He endures for ever, and is every where present”:

Sir Isaac Newton (1642- 1727) Quoted from his book "Principia"

<http://gravitee.tripod.com/genschol.htm>

Moreover, besides Darwinists not having any coherent explanation for why the universe should be describable by mathematics, Darwinists have even less of an explanation for why humans should have an innate and unique ability to understand this transcendent world of mathematics. In the following article, a group of leading evolutionary scientists conceded, after decades of extensive research, that they have **essentially no explanation of how and why our linguistic computations and representations evolved.**,

Leading Evolutionary Scientists Admit We Have No Evolutionary Explanation of Human Language - December 19, 2014

Excerpt: Understanding the evolution of language requires evidence regarding origins and processes that led to change. In the last 40 years, there has been an explosion of research on this problem as well as a sense that considerable progress has been made.

We argue instead that the richness of ideas is accompanied by a poverty of evidence, with essentially no explanation of how and why our linguistic computations and representations evolved.,,,

(Marc Hauser, Charles Yang, Robert Berwick, Ian Tattersall, Michael J. Ryan, Jeffrey Watumull, Noam Chomsky and Richard C. Lewontin, "The mystery of language evolution," *Frontiers in Psychology*, Vol 5:401 (May 7, 2014).)

Luskin comments: **“It's difficult to imagine much stronger words from a more prestigious collection of experts.”**

http://www.evolutionnews.org/2014/12/leading_evoluti092141.html

Evolution of the Genus Homo – Annual Review of Earth and Planetary Sciences – Ian Tattersall, Jeffery H. Schwartz, May 2009

Excerpt: “Definition of the genus Homo is almost as fraught as the definition of Homo sapiens. We look at the evidence for “early Homo,” finding little morphological basis for

extending our genus to any of the 2.5–1.6-myr-old fossil forms assigned to “early Homo” or Homo habilis/rudolfensis.”,,,

“Unusual though Homo sapiens may be morphologically, it is undoubtedly our remarkable cognitive qualities that most strikingly demarcate us from all other extant species. They are certainly what give us our strong subjective sense of being qualitatively different. And they are all ultimately traceable to our symbolic capacity. **Human beings alone, it seems, mentally dissect the world into a multitude of discrete symbols, and combine and recombine those symbols in their minds to produce hypotheses of alternative possibilities. When exactly Homo sapiens acquired this unusual ability is the subject of debate.**”

<http://www.annualreviews.org/doi/abs/10.1146/annurev.earth.031208.100202>

Geometric Principles Appear Universal in Our Minds - May 2011

Excerpt: **Villagers belonging to an Amazonian group called the Mundurucú intuitively grasp abstract geometric principles despite having no formal math education,,, Mundurucú adults and 7- to 13-year-olds demonstrate as firm an understanding of the properties of points, lines and surfaces as adults and school-age children in the United States and France,,,**

<http://www.wired.com/wiredscience/2011/05/universal-geometry/>

Charles Darwin himself, as well as other atheists of his time, held that human thought was merely a secretion of the brain as the liver secretes bile,,,

A Grave Matter: Richard Weikart on Humanity’s Life or Death Struggle - Michael Flannery - April 4, 2016

Excerpt: it was years before the Origin of Species, as early as spring 1838, that Darwin wrote privately **“Why is thought being a secretion of the brain, more wonderful than gravity a property of matter?** It is our arrogance, it is our admiration of ourselves” (Darwin’s Notebooks, 291). Weikart gives another from the Notebooks, quoting Darwin, **“thought, however unintelligible it may be, seems as much function of organ, as bile of liver”** (55). Darwin expressed the second proposition more publicly when he suggested that the difference between man and animal was one of degree, not kind (Descent of Man [1871]).

https://evolutionnews.org/2016/04/a_grave_matter/

“The brain secretes thought as the liver secretes bile,” claimed 18th century French physiologist Pierre Cabanis. Materialist metaphysics hasn’t progressed much further in the meantime.”

- David Pearce - Nov. 2016

<https://plus.google.com/+DavidPearce/posts/D7DiWe41rPj>

Yet the problem that mathematics presents for the Darwinian belief that human thought is merely a 'secretion' of the brain is fairly profound. As David Berlinski puts it, **“Why should a limited and finite organ such as the human brain have the power to see into the heart of matter or mathematics? These are subjects that have nothing to do with the Darwinian business of scrabbling up the greasy pole of life. It is as if the liver, in addition to producing bile, were to demonstrate a unexpected ability to play the violin. This is a question that Darwinian biology has not yet answered.”**

"Why should a limited and finite organ such as the human brain have the power to see into the heart of matter or mathematics? These are subjects that have nothing to do with the Darwinian business of scrabbling up the greasy pole of life. It is as if the liver, in addition to producing bile, were to demonstrate a unexpected ability to play the violin. This is a question that Darwinian biology has not yet answered."

- David Berlinski - The Devil's Delusion - page 16

<https://books.google.com/books?id=pPCYCl5m4UsC&pg=PA16#v=onepage&q&f=false>

<https://www.youtube.com/watch?v=VtGtYogBiNs>

Modern day Darwinists following in the steps of Alan Turing, who believed he was merely a Turing machine, which is to say that Turing believed he was basically a computer, rather than now claiming that human thought is a quote unquote 'secretion' of the brain, are now fond of saying that human thought is merely a form of computing.

How Alan Turing found machine thinking in the human mind - 29 June 2016

Excerpt: Having based computers on human behaviour, **Turing noted that people are really Turing machines. Computers are our mirrors:** whether we marvel or shudder at the latest AI, we're merely looking at ourselves.

<https://www.newscientist.com/article/mg23130803-200-how-alan-turing-found-machine-thinking-in-the-human-mind/>

Computational theory of mind

In philosophy, a **computational theory of mind** names a view that the human mind or the human brain (or both) is an information processing system and that **thinking is a form of computing**. The theory was proposed in its modern form by Hilary Putnam in 1961, and developed by the MIT philosopher and cognitive scientist Jerry Fodor (who was Putnam's PhD student) in the 1960s, 1970s and 1980s.[1][2] Despite being vigorously disputed in analytic philosophy in the 1990s (due to work by Putnam himself, John Searle, and others), the view is common in modern cognitive psychology and is presumed by many theorists of evolutionary psychology; in the 2000s and 2010s the view has resurfaced in analytic philosophy (Scheutz 2003, Edelman 2008).

https://en.wikipedia.org/wiki/Computational_theory_of_mind

And although Alan Turing and modern day Darwinists may be fond of saying that human thought is merely a form of computing, Turing's very first paper, which outlined the basics of the Turing machine as well as outlining the halting problem for computers,,,

Turing machine

Excerpt: **The Turing machine was invented in 1936 by Alan Turing**,[11][12] who called it an a-machine (automatic machine).[13] With this model, Turing was able to answer two questions in the negative: (1) Does a machine exist that can determine whether any arbitrary machine on its tape is "circular" (e.g. freezes, or fails to continue its computational task); similarly, (2) does a machine exist that can determine whether any arbitrary machine on its tape ever prints a given symbol.[14] Thus by providing a mathematical description of a very simple device capable of arbitrary computations, he was able to prove properties of computation in general—and in particular, the uncomputability of the Entscheidungsproblem ("decision problem").[15]

https://en.wikipedia.org/wiki/Turing_machine

Halting problem

Excerpt: the halting problem is the problem of determining, from a description of an arbitrary computer program and an input, whether the program will finish running or continue to run forever.

Alan Turing proved in 1936 that a general algorithm to solve the halting problem for all possible program-input pairs cannot exist. A key part of the proof was a mathematical definition of a computer and program, which became known as a Turing machine; the halting problem is undecidable over Turing machines. It is one of the first examples of a decision problem.

https://en.wikipedia.org/wiki/Halting_problem

,,, Turing's very first paper smashes the idea that human thinking is merely a form of computing,. As Gregory Chaitin states in this following video, **“if you look at his (Turing's) first paper when he points out that machines have limits, because there are numbers, in fact most numbers can not be calculated by any machine. He is showing the power of the human mind to imagine things that escape what any machine could ever do. You see, so that may go against his own philosophy. He (Turing) may think of himself as a machine, but his very first paper is smashing machines. Its creating machines and then it is pointing out their devastating limitations.”**

Dangerous Knowledge (Spanish Subtitles) 2/2 - video - 27:22 minute mark

Quote: "Turing's personality is one thing. His mathematics doesn't have to be consistent with his personality. There is his work on artificial intelligence where he does believe that machines could become intelligent just like people. Or better or different but intelligent. **But if you look at his first paper when he points out that machines have limits, because there are numbers, in fact most numbers can not be calculated by any machine. He is showing the power of the human mind to imagine things that escape what any machine could ever do. You see, so that may go against his own philosophy. He (Turing) may think of himself as a machine, but his very first paper is smashing machines. Its creating machines and then it is pointing out their devastating limitations.”**

- Gregory Chaitin

<https://vimeo.com/30641992>

The following article points out that Turing's work on the halting problem is actually an extension of Gödel's incompleteness theorem

Mathematics as a Biological Process - G. J. Chaitin

Excerpt: what Gödel showed is that no finite set of axioms, no formal axiomatic theory, can include everything --- there is no theory of everything for pure mathematics. That's what Gödel showed.

This was quite a shock, and in 1936 Alan Turing made things even worse. Turing found a much deeper reason for incompleteness. This is in Turing's famous 1936 paper "On computable numbers, with an application to the Entscheidungsproblem." In a way, Turing's 1936 paper creates the computer industry, because it talks about flexible, universal machines and the idea of hardware and software. And besides constructing a

primitive kind of computer called a Turing machine, this paper introduces the idea of the computer to pure mathematics as a fundamental new concept.

However, I think that the most interesting thing about this paper isn't its positive aspect, it's its negative aspect. The negative aspect of the paper is that **Turing shows that there are very basic things which cannot be computed.** And from **uncomputability --- from the existence of mathematical questions where you cannot calculate the answers systematically --- Turing deduces a form of incompleteness, a new kind of incompleteness theorem.,,,**

Turing's work is wonderful because it makes incompleteness much more solid. Gödel's proof was too paradoxical: "I'm unprovable" is too much like "This statement is false." Gödel's proof looks too close to the paradoxes which were upsetting everybody. But Turing found a more basic reason that you can't have a formal theory for all of mathematics.

<https://www.cs.auckland.ac.nz/~chaitin/wis.html>

Kurt Gödel himself stated that, **"Either mathematics is too big for the human mind, or the human mind is more than a machine."**

"Either mathematics is too big for the human mind, or the human mind is more than a machine."

Kurt Gödel As quoted in Topoi : The Categorical Analysis of Logic (1979) by Robert Goldblatt, p. 13

Moreover, besides the halting problem undermining the atheist's claim that human thought is merely a form of computation, there is another major flaw that is even more fatal to their belief that human thought is merely a computational process.

That fatal flaw is, although humans create information, and indeed humans do create information almost as a force of habit, Darwinian processes and computational processes in particular, due to the law of conservation of information, cannot create information. As William Dembski and Robert Marks state in the following paper, **"Information does not magically materialize. It can be created by intelligence or it can be shunted around by natural forces. But natural forces, and Darwinian processes in particular, do not create information."**

LIFE'S CONSERVATION LAW - William Dembski - Robert Marks - Pg. 13

Excerpt: (Computer) Simulations such as Dawkins's WEASEL, Adami's AVIDA, Ray's Tierra, and Schneider's ev appear to support Darwinian evolution, but only for lack of clear accounting practices that track the information smuggled into them.,,, **Information does not magically materialize. It can be created by intelligence or it can be shunted around by natural forces. But natural forces, and Darwinian processes in particular, do not create information.** Active information enables us to see why this is the case.

<http://evoinfo.org/publications/lifes-conservation-law/>

What Does "Life's Conservation Law" Actually Say? - Winston Ewert - December 3, 2015

Excerpt: **All information must eventually derive from a source external to the universe,**

http://www.evolutionnews.org/2015/12/what_does_lifes101331.html

Evolutionary Computing: The Invisible Hand of Intelligence - June 17, 2015

Excerpt: William Dembski and Robert Marks have shown that no evolutionary algorithm is superior to blind search -- unless information is added from an intelligent cause, which means it is not, in the Darwinian sense, an evolutionary algorithm after all. This mathematically proven law, based on the accepted No Free Lunch Theorems, seems to be lost on the champions of evolutionary computing.,,,

What Marks and Dembski (mathematically) prove is as scientifically valid and relevant as Gödel's Incompleteness Theorem in mathematics. You can't prove a system of mathematics from within the system, and you can't derive an information-rich pattern from within the pattern.,,,

http://www.evolutionnews.org/2015/06/evolutionary_co_1096931.html

Conservation of information, evolution, etc - Sept. 30, 2014

Excerpt: Kurt Gödel's logical objection to Darwinian evolution:

"The formation in geological time of the human body by the laws of physics (or any other laws of similar nature), starting from a random distribution of elementary particles and the field is as unlikely as the separation of the atmosphere into its components. The complexity of the living things has to be present within the material [from which they are derived] or in the laws [governing their formation]."

Gödel - As quoted in H. Wang. "On 'computabilism' and physicalism: Some Problems." in Nature's Imagination, J. Cornwall, Ed, pp.161-189, Oxford University Press (1995).

Gödel's argument is that if evolution is unfolding from an initial state by mathematical laws of physics, it cannot generate any information not inherent from the start – and in his view, neither the primaeval environment nor the laws are information-rich enough.,,,

More recently this led him (Dembski) to postulate a Law of Conservation of Information, or actually to consolidate the idea, first put forward by Nobel-prizewinner Peter Medawar in the 1980s. Medawar had shown, as others before him, that in mathematical and computational operations, no new information can be created, but new findings are always implicit in the original starting points – laws and axioms.,,,

<http://potiphar.jongarvey.co.uk/2014/09/30/conservation-of-information-evolution-etc/>

Top Ten Questions and Objections to 'Introduction to Evolutionary Informatics' - Robert J. Marks II - June 12, 2017

Excerpt: There exists no (computer) model successfully describing undirected Darwinian evolution. Period. By "model," we mean definitive simulations or foundational mathematics required of a hard science.,,,

We show that no meaningful information can arise from an evolutionary process unless that process is guided. Even when guided, the degree of evolution's accomplishment is limited by the expertise of the guiding information source — a limit we call Basener's ceiling. An evolutionary program whose goal is to master chess will never evolve further and offer investment advice.,,,

We show that the probability resources of the universe and even string theory's hypothetical multiverse are insufficient to explain the specified complexity surrounding us.,,,

If a successful search requires equaling or exceeding some degree of active information, what is the chance of finding any search with as good or better performance? We call this a search-for-the-search. In Introduction to Evolutionary Informatics, we show that the search-for-the-search is exponentially more difficult than the search itself!.,,,

.,,,we use information theory to measure meaningful information and show there exists no model successfully describing undirected Darwinian evolution.,,,

.,,, if the fitness continues to change, it is argued, the evolved entity can achieve greater and greater specified complexity.,,,

.,,, We,, dub the overall search structure 'stair step active information'. Not only is guidance required on each stair, but the next step must be carefully chosen to guide the process to the higher fitness landscape and therefore ever increasing complexity.,,,

Such fine tuning is the case of any fortuitous shift in fitness landscapes and increases, not decreases, the difficulty of evolution of ever-increasing specified complexity. It supports the case there exists no model successfully describing undirected Darwinian evolution.,,,

Turing's landmark work has allowed researchers, most notably Roger Penrose,²⁶ to make the case that certain of man's attributes including creativity and understanding are beyond the capability of the computer.,,,

.,,, there exists no model successfully describing undirected Darwinian evolution.

According to our current understanding, there never will be.,,,

<https://evolutionnews.org/2017/06/top-ten-questions-and-objections-to-introduction-to-evolutionary-informatics/>

In fact, as the following paper shows, since computers cannot create information, **the famous "Turing test" for artificial intelligence could be defeated by simply asking for a new axiom in mathematics. Human mathematicians are able to create axioms, but a computer program cannot do this without violating information conservation.**

Algorithmic Information Theory, Free Will and the Turing Test - Douglas G. Robertson - 1999

Excerpt: Chaitin's Algorithmic Information Theory shows that information is conserved under formal mathematical operations and, equivalently, under computer operations. This conservation law puts a new perspective on many familiar problems related to artificial intelligence. For example, **the famous "Turing test" for artificial intelligence could be defeated by simply asking for a new axiom in mathematics. Human mathematicians are able to create axioms, but a computer program cannot do this without violating information conservation.** Creating new axioms and free will are shown to be different aspects of the same phenomenon: the creation of new information. "... no operation performed by a computer can create new information."

<http://cires.colorado.edu/~doug/philosophy/info8.pdf>

In the following paper, mathematician James Franklin states, **the intellect (is) immaterial and immortal. If today's naturalists do not wish to agree with that, there is a challenge for them. 'Don't tell me, show me': build an artificial intelligence system that imitates**

genuine mathematical insight. There seem to be no promising plans on the drawing board.,,,

The mathematical world - James Franklin - 7 April 2014

Excerpt: **the intellect (is) immaterial and immortal. If today's naturalists do not wish to agree with that, there is a challenge for them. 'Don't tell me, show me': build an artificial intelligence system that imitates genuine mathematical insight. There seem to be no promising plans on the drawing board.,,,**

- James Franklin is professor of mathematics at the University of New South Wales in Sydney.

<http://aeon.co/magazine/world-views/what-is-left-for-mathematics-to-be-about/>

Here are a few more references along the same line pointing out some of the devastating limitations of computers in regards to computers ever achieving true intelligence.,,

The danger of artificial stupidity – Saturday, 28 February 2015

“Computers lack mathematical insight: in his book The Emperor's New Mind, the Oxford mathematical physicist **Sir Roger Penrose deployed Gödel's first incompleteness theorem to argue that, in general, the way mathematicians provide their “unassailable demonstrations” of the truth of certain mathematical assertions is fundamentally non-algorithmic and non-computational”**

<http://machineslikeus.com/news/danger-artificial-stupidity>

Robert Marks: **Some Things Computers Will Never Do: Nonalgorithmic Creativity and Unknowability** - video

<https://www.youtube.com/watch?v=Cm0s7ag3SEc>

Podcast: (AI) Robert Crowther “Why Artificial Intelligence Will Never Replace Humanity,” Interview with Robert J Marks, ID the Future, December 18, 2017.

<https://www.discovery.org/multimedia/audio/2017/12/why-artificial-intelligence-will-never-replace-humanity/>

Podcast: (AI) Robert Crowther “The Dangers, Limits and Promise of Artificial Intelligence.” Interview with Robert J Marks, ID the Future, January 8, 2018.

<https://www.discovery.org/multimedia/audio/2018/01/the-dangers-limits-and-promise-of-artificial-intelligence/#more-33468>

<https://uncommondescent.com/evolution/evolutionary-informatics-has-come-a-long-way-since-a-baylor-dean-tried-to-shut-down-the-lab/>

Your Computer Doesn't Know Anything - Michael Egnor - January 23, 2015

Excerpt: **Your computer doesn't know a binary string from a ham sandwich.** Your math book doesn't know algebra. Your Rolodex doesn't know your cousin's address. Your watch doesn't know what time it is. Your car doesn't know where you're driving. Your television doesn't know who won the football game last night. Your cell phone doesn't know what you said to your girlfriend this morning.

People know things. Devices like computers and books and Rolodexes and watches and cars and televisions and cell phones don't know anything. They don't have minds. They

are artifacts — paper and plastic and silicon things designed and manufactured by people — and they provide people with the means to leverage their human knowledge. Computers (and books and watches and the like) are the means by which people leverage and express knowledge. Computers store and process representations of knowledge. But computers have no knowledge themselves.

Computers (and books and watches and the like) are the means by which people leverage and express knowledge. Computers store and process representations of knowledge. But computers have no knowledge themselves.

Programmers and computer manufacturers have knowledge. Programmers and computer manufacturers know that a particular binary string is an ASCII character versus a binary number, or an executable instruction set.,,

https://evolutionnews.org/2015/01/your_computer_d_1/

That Darwinian processes in general and computational processes in particular are now shown, due to the law of conservation of information, not to be able to create information, should not be all that surprising. As was already previously shown in this video, information is its own distinct physical entity that is separate from matter and energy.,

Matter, energy... knowledge: - May 11, 2016

Running a brain-twisting thought experiment for real shows that information is a physical thing – so can we now harness the most elusive entity in the cosmos?

<https://www.newscientist.com/article/mg23030730-200-demon-no-more-physics-most-elusive-entity-gives-up-its-secret/>

,, Information simply is NOT an emergent property of some material basis as Darwinists, and even Rolf Landauer himself of IBM fame, had presupposed,,

Information is Physical (but not how Rolf Landauer meant) - video

<https://www.youtube.com/watch?v=H35I83y5Uro>

paper:

https://docs.google.com/document/d/10cvE9DEkrTw3RGJzh2B_pD-6AQoXvQ3EtuSx5GA4Ihc/edit

As MIT mathematician Norbert Wiener put it, **'The mechanical brain does not secrete thought “as the liver does bile,” as the earlier materialists claimed, nor does it put it out in the form of energy, as the muscle puts out its activity. Information is information, not matter or energy. No materialism which does not admit this can survive at the present day.'**

“The mechanical brain does not secrete thought “as the liver does bile,” as the earlier materialists claimed, nor does it put it out in the form of energy, as the muscle puts out its activity. Information is information, not matter or energy. No materialism which does not admit this can survive at the present day.”

Norbert Wiener - MIT Mathematician - (Cybernetics, 2nd edition, p.132 (March 15, 1965))

<http://www.informationphilosopher.com/solutions/scientists/wiener/>

Moreover, besides the inability to create information, the following paper offers a mathematical critique of the claim that computers may someday be conscious. Simply put, the mathematical critique shows that in the most basic logical operations of computers **“You have (to) put in two bits, and you get one out. If the brain integrated information in this fashion, (as the most influential theories in the field hold it must do), it would have to be continuously hemorrhaging information.”**,,, Maguire and his team have shown mathematically that **computers can’t handle any process that integrates information completely. If you accept that consciousness is based on total integration, then computers can’t be conscious.**

Sentient robots? Not possible if you do the maths – 13 May 2014

Over the past decade, Giulio Tononi at the University of Wisconsin-Madison and his colleagues have developed a mathematical framework for consciousness that has become one of **the most influential theories in the field**. According to their model, **the ability to integrate information is a key property of consciousness.** ,,,

But there is a catch, argues Phil Maguire at the National University of Ireland in Maynooth. He points to a computational device called the XOR logic gate, which involves two inputs, A and B. The output of the gate is “1” if A and B are the same and “0” if A and B are different. In this scenario, it is impossible to predict the output based on A or B alone – you need both.

Crucially, this type of integration requires loss of information, says Maguire: **“You have (to) put in two bits, and you get one out. If the brain integrated information in this fashion, it would have to be continuously hemorrhaging information.”**,,,

Based on this definition, **Maguire and his team have shown mathematically that computers can’t handle any process that integrates information completely. If you accept that consciousness is based on total integration, then computers can’t be conscious.**

<http://www.newscientist.com/article/dn25560-sentient-robots-not-possible-if-you-do-the-maths.html#.U3LD5ChugCe>

Mathematical Model Of Consciousness Proves Human Experience Cannot Be Modeled On A Computer – May 2014

Excerpt: The central part of their new work is to describe the mathematical properties of a system that can store integrated information in this way but without it leaking away.

And this leads them to their central proof. **“The implications of this proof are that we have to abandon either the idea that people enjoy genuinely [integrated] consciousness or that brain processes can be modeled computationally,”** say **Maguire and co.**

Since Tononi’s main assumption is that consciousness is the experience of integrated information, it is the second idea that must be abandoned: brain processes cannot be modeled computationally.

<https://medium.com/the-physics-arxiv-blog/mathematical-model-of-consciousness-prove-s-human-experience-cannot-be-modelled-on-a-computer-898b104158d>

And from another angle that also mathematically critiques the idea that computers may someday be conscious, the following paper states, **In representing consciousness mathematically, Song shows that consciousness is not compatible with a machine.**,,, **“The brain and consciousness are linked together, but the brain does not produce**

consciousness. Consciousness is something altogether different and separate. The math doesn't lie."

Consciousness Does Not Compute (and Never Will), Says Korean Scientist – May 05, 2015 (based on 2007 paper)

Excerpt: "Non-computability of Consciousness" documents Song's quantum computer research into TS (technological singularity (TS) or strong artificial intelligence). Song was able to show that in certain situations, a conscious state can be precisely and fully represented in mathematical terms, in much the same manner as an atom or electron can be fully described mathematically. That's important, because the neurobiological and computational approaches to brain research have only ever been able to provide approximations at best. **In representing consciousness mathematically, Song shows that consciousness is not compatible with a machine.**

Song's work also shows consciousness is not like other physical systems like neurons, atoms or galaxies. "If consciousness cannot be represented in the same way all other physical systems are represented, it may not be something that arises out of a physical system like the brain," said Song. **"The brain and consciousness are linked together, but the brain does not produce consciousness. Consciousness is something altogether different and separate. The math doesn't lie."**

Of note: Daegene Song obtained his Ph.D. in physics from the University of Oxford
<http://www.prnewswire.com/news-releases/consciousness-does-not-compute-and-never-will-says-korean-scientist-300077306.html>

Reply to accusation of a Mathematical Error in "Incompatibility Between Quantum Theory and Consciousness" – Daegene Song – 2008
<http://www.neuroquantology.com/index.php/journal/article/download/176/176>

An even greater mathematical proof that free will and consciousness will forever be beyond the explanatory power of natural processes comes from the mathematics of quantum mechanics. As John von Neumann stated in his book, 'The Mathematical Foundations of Quantum Mechanics', **we must always divide the world into two parts, the one being the observed system, the other the observer.**

How (conscious) observation is inextricably bound to measurement in quantum mechanics:

Quote: "We wish to measure a temperature.,,,

But in any case, no matter how far we calculate -- to the mercury vessel, to the scale of the thermometer, to the retina, or into the brain, at some time we must say: and this is perceived by the observer. That is, **we must always divide the world into two parts, the one being the observed system, the other the observer."**

John von Neumann - 1903-1957 - The Mathematical Foundations of Quantum Mechanics, pp.418-21 - 1955

<http://www.informationphilosopher.com/solutions/scientists/neumann/>

On The Comparison Of Quantum and Relativity Theories – Sachs – 1986

Excerpt: **quantum theory entails an irreducible subjective element in its conceptual basis.** In contrast, the theory of relativity when fully exploited, is based on a totally objective view.

<http://books.google.com/books?id=8qaYGFuXvMkC&pg=PA11#v=onepage&q&f=false>

And as Stephen Barr points out in the following article, **as long as only purely physical entities are involved, they are governed by an equation that says that the probabilities don't jump.**

That's why, when (Rudolf) Peierls (piles) was asked whether a machine could be an "observer," he said no, explaining that "the quantum mechanical description is in terms of knowledge, and knowledge requires somebody who knows." Not a purely physical thing, but a mind.

Does Quantum Physics Make it Easier to Believe in God? Stephen M. Barr – July 10, 2012

Excerpt: Couldn't an inanimate physical device (say, a Geiger counter) carry out a "measurement" (minus the 'observer' in quantum mechanics)? That would run into the very problem pointed out by von Neumann: If the "observer" were just a purely physical entity, such as a Geiger counter, one could in principle write down a bigger wavefunction that described not only the thing being measured but also the observer. And, when calculated with the Schrödinger equation, that bigger wave function would not jump!

Again: **as long as only purely physical entities are involved, they are governed by an equation that says that the probabilities don't jump.**

That's why, when (Rudolf) Peierls was asked whether a machine could be an "observer," he said no, explaining that "the quantum mechanical description is in terms of knowledge, and knowledge requires somebody who knows." Not a purely physical thing, but a mind.

<https://www.bigquestionsonline.com/content/does-quantum-physics-make-it-easier-believe-god>

In the following article, entitled 'The Trouble with Quantum Mechanics', Steven Weinberg states free will's primary role in the equations of quantum mechanics as such, **"if we regard the whole process of measurement as being governed by the equations of quantum mechanics, and these equations are perfectly deterministic, how do probabilities get into quantum mechanics?,,,"** **"In the instrumentalist approach,,," humans are brought into the laws of nature at the most fundamental level."** **"Thus the instrumentalist approach turns its back on a vision that became possible after Darwin, of a world governed by impersonal physical laws that control human behavior along with everything else."** **In quantum mechanics these probabilities do not exist until people choose what to measure,,," Unlike the case of classical physics, a choice must be made,,,"**

The Trouble with Quantum Mechanics – Steven Weinberg – January 19, 2017

Excerpt: The trouble is that in quantum mechanics the way that wave functions change with time is governed by an equation, the Schrödinger equation, that does not involve probabilities. It is just as deterministic as Newton's equations of motion and gravitation. That is, given the wave function at any moment, the Schrödinger equation will tell you precisely what the wave function will be at any future time. There is not even the possibility of chaos, the extreme sensitivity to initial conditions that is possible in Newtonian mechanics. **So if we regard the whole process of measurement as being governed by the equations of quantum mechanics, and these equations are perfectly deterministic, how do probabilities get into quantum mechanics?,,,"**

The instrumentalist approach,, (the) wave function,, is merely an instrument that provides predictions of the probabilities of various outcomes when measurements are made.,,

In the instrumentalist approach,,, humans are brought into the laws of nature at the most fundamental level. According to Eugene Wigner, a pioneer of quantum mechanics, “it was not possible to formulate the laws of quantum mechanics in a fully consistent way without reference to the consciousness.”¹¹

Thus the instrumentalist approach turns its back on a vision that became possible after Darwin, of a world governed by impersonal physical laws that control human behavior along with everything else. It is not that we object to thinking about humans. Rather, we want to understand the relation of humans to nature, not just assuming the character of this relation by incorporating it in what we suppose are nature’s fundamental laws, but rather by deduction from laws that make no explicit reference to humans. We may in the end have to give up this goal.,,

Some physicists who adopt an instrumentalist approach argue that the probabilities we infer from the wave function are objective probabilities, independent of whether humans are making a measurement. I don’t find this tenable. **In quantum mechanics these probabilities do not exist until people choose what to measure, such as the spin in one or another direction. Unlike the case of classical physics, a choice must be made,,,**

<http://www.nybooks.com/articles/2017/01/19/trouble-with-quantum-mechanics/>

Determinism vs Free Will - video

<https://www.youtube.com/watch?v=lwPER4m2axI>

Paper:

<https://docs.google.com/document/d/1A0aqDE77rwyRQPHxzcG-nZi4HeYECwXwgoPfrVk3ecY/edit>

Double Slit, Quantum-Electrodynamics, and Christian Theism - video

<https://www.youtube.com/watch?v=AK9kGplxMRM>

Quantum Mechanics and Consciousness: 5 Experiments – video

<https://youtu.be/t5qphmi8gYE>

Paper

https://docs.google.com/document/d/1rqqkxxQighlbyqtE0VeBZmu9D3GvUQfO5v1xwOTyp_E/edit

1. Consciousness either precedes all of material reality or is a 'epi-phenomena' of material reality.
 2. If consciousness is a 'epi-phenomena' of material reality then consciousness will be found to have no special position within material reality. Whereas conversely, if consciousness precedes material reality then consciousness will be found to have a special position within material reality.
 3. Consciousness is found to have a special, even central, position within material reality.
 4. Therefore, consciousness is found to precede material reality.
- Five intersecting lines of experimental evidence from quantum mechanics that shows that consciousness precedes material reality (Double Slit, Wigner’s Quantum Symmetries, Wheeler’s Delayed Choice, Leggett’s Inequalities, Quantum Zeno effect):

- A Short Survey Of Quantum Mechanics and Consciousness

<https://docs.google.com/document/d/1uLcJUgM1vwFyjwcbwuYP0bK6k8mXy-of990Hudzul/edit>

Albert Einstein, of relativity fame, and Eugene Wigner, who won a Nobel prize for quantum symmetries, are both on record as to considering it a miracle that man is able to accurately model the universe using mathematics: Specifically, Einstein stated **“You find it strange that I consider the comprehensibility of the world (to the extent that we are authorized to speak of such a comprehensibility) as a miracle or as an eternal mystery. Well, a priori, one should expect a chaotic world, which cannot be grasped by the mind in any way,,,”** That is the ‘miracle’ which is constantly reinforced as our knowledge expands.”

“You find it strange that I consider the comprehensibility of the world (to the extent that we are authorized to speak of such a comprehensibility) as a miracle or as an eternal mystery. Well, a priori, one should expect a chaotic world, which cannot be grasped by the mind in any way .. the kind of order created by Newton’s theory of gravitation, for example, is wholly different. Even if a man proposes the axioms of the theory, the success of such a project presupposes a high degree of ordering of the objective world, and this could not be expected a priori. **That is the ‘miracle’ which is constantly reinforced as our knowledge expands.**

There lies the weakness of positivists and professional atheists who are elated because they feel that they have not only successfully rid the world of gods but “bared the miracles”. Oddly enough, we must be satisfied to acknowledge the “miracle” without there being any legitimate way for us to approach it.,,”

- Albert Einstein – On the Rational Order of the World: a Letter to Maurice Solovine - March 30, 1952

<http://inters.org/Einstein-Letter-Solovine>

And along that same line, Eugene Wigner stated “, **certainly it is hard to believe that our reasoning power was brought, by Darwin’s process of natural selection, to the perfection which it seems to possess.,,,**

It is difficult to avoid the impression that a miracle confronts us here,,,” The miracle of the appropriateness of the language of mathematics for the formulation of the laws of physics is a wonderful gift which we neither understand nor deserve.”

The Unreasonable Effectiveness of Mathematics in the Natural Sciences – Eugene Wigner – 1960

Excerpt: **,,certainly it is hard to believe that our reasoning power was brought, by Darwin’s process of natural selection, to the perfection which it seems to possess.,,,**

It is difficult to avoid the impression that a miracle confronts us here, quite comparable in its striking nature to the miracle that the human mind can string a thousand arguments together without getting itself into contradictions, or to the two miracles of the existence of laws of nature and of the human mind’s capacity to divine them.,,,

The miracle of the appropriateness of the language of mathematics for the formulation of the laws of physics is a wonderful gift which we neither understand nor deserve. We should be grateful for it and hope that it will remain valid in future

research and that it will extend, for better or for worse, to our pleasure, even though perhaps also to our bafflement, to wide branches of learning.

<http://www.dartmouth.edu/~matc/MathDrama/reading/Wigner.html>

Mathematics and Physics – A Happy Coincidence? – William Lane Craig – video

<https://www.youtube.com/watch?v=BF25AA4dgGg>

1. If God did not exist the applicability of mathematics would be a happy coincidence.
2. The applicability of mathematics is not a happy coincidence.
3. Therefore, God exists.

And seeing as Charles Darwin himself stated **“I would give absolutely nothing for the theory of Natural Selection, if it require miraculous additions at any one stage of descent.”**

The Lord’s Day, Meet Darwin Day... and Shudder – February 10, 2017

Excerpt: In The Origin of Species, Darwin suggested the idea of a God who created a few original forms and then let the “laws” of nature govern the outcome. “It is just as noble a conception of the Deity to believe that He created a few original forms capable of self-development into other and needful forms,” he wrote, “as to believe that he required a fresh act of creation to supply the voids caused by the action of his laws.”,,,

As he told geologist Charles Lyell, **“I would give absolutely nothing for the theory of Natural Selection, if it require miraculous additions at any one stage of descent.”**

<https://spectator.org/the-lords-day-meet-darwin-day-and-shudder/>

,, then it should not be all that surprising to learn that Charles Darwin, number one, found his work in college level mathematics to be repugnant,

“During the three years which I spent at Cambridge my time was wasted, as far as the academical studies were concerned, as completely as at Edinburgh and at school. **I attempted mathematics**, and even went during the summer of 1828 with a private tutor (a very dull man) to Barmouth, but I got on very slowly. **The work was repugnant to me**, chiefly from my not being able to see any meaning in the early steps in algebra. This impatience was very foolish, and in after years I have deeply regretted that I did not proceed far enough at least to understand something of the great leading principles of mathematics, for men thus endowed seem to have an extra sense. But I do not believe that I should ever have succeeded beyond a very low grade.”

Charles Darwin, 1887 – Recollections of the Development of my Mind & Character,

<http://www.turtlereader.com/authors/charles-darwin/the-life-and-letters-of-charles-darwin-day-13-of-188/>

Charles Darwin- The Cambridge Years (1828-1831)

Excerpt: **Darwin’s main weakness was in mathematics, a subject he sometimes despaired of ever mastering. About math he once remarked, “I stick fast in the mud at the bottom (of a river), and there I shall remain.”**

<http://www.newtonsapple.org.uk/charles-darwin-the-cambridge-years-1828-1831/>

Positive attitude toward math predicts math achievement in kids, study finds -
January 24, 2018

Excerpt: Educators have long observed higher math scores in children who show more interest in math and perceive themselves as being better at it. But it has not been clear if this attitude simply reflects other capacities, such as higher intelligence.

The new study found that, even once IQ and other confounding factors were accounted for, a positive attitude toward math still predicted which students had stronger math performance.

'Attitude is really important'

"Attitude is really important," said Lang Chen, PhD, the study's lead author and a postdoctoral scholar in psychiatry and behavioral sciences. **"Based on our data, the unique contribution of positive attitude to math achievement is as large as the contribution from IQ."**

<https://medicalxpress.com/news/2018-01-positive-attitude-math-kids.html>

,,, and, number two, that Charles Darwin introduced not a single mathematical equation in his book, 'Origin of Species'.

The equations of evolution - niwrad- March 24, 2013

Excerpt: **Darwin introduced no math whatsoever in his theory of origin of species.**

Darwin hated math (not by chance). Therefore one had to wait for few XX (20th) century mathematicians before seeing some math in evolutionary theory. It is specifically in population genetics that one finally encounters some applications of probability theory and statistics. They consist basically in two main equations: the Hardy-Weinberg law and the Price equation.,,,

To claim that the Hardy-Weinberg law explains evolution is as to say that in mechanics a principle of statics (immobility) explains dynamics (movement and the forces causing it),,,

For a detailed critic of Price's analysis by serious statisticians see here.,,,

"the data explain the data" [...] "for doing statistics the Price equation did not help" [...]

"can't think of anything remotely useful about the Price equation" [...] "some of us remember a feeling of doubt when first confronted with the Price equation, it may be a relief to hear John Maynard Smith [the famous evolutionist] say 'I'm not going to tell you what Price's theorem is, because I don't actually understand it' ..."

The final point to take is that, also to be very generous, the Price equation does not explain at all how new systems arise in the species in the first place. It gets them as input systems already created by an unknown organizational cause. But the Darwinist claim is that evolution does create biological systems, and the Price equation, like the Hardy-Weinberg law, helps exactly zero to explain such creation.

So the initial question, how well (does) math support Darwinian evolution, (here's) the short answer: it doesn't support evolution at all.

<http://www.uncommondescent.com/intelligent-design/the-equations-of-evolution/>

That is not to say that modern day Darwinists of the twentieth and twenty-first century have not tried to apply the quote unquote 'miracle' of mathematics to their theory of natural selection so as to give it a semblance of scientific credibility.

But in a finding that should not be all that surprising, it has now been found that when modern day population geneticists apply the 'miracle' of mathematics to Darwin's theory of natural

selection, the mathematics of population genetics itself falsifies natural selection. Here are a few papers that drive this point home.

The waiting time problem in a model hominin population – 2015 Sep 17

John Sanford, Wesley Brewer, Franzine Smith, and John Baumgardner

Excerpt: the waiting time for the fixation of a “string-of-one” is by itself problematic (Table 2). Waiting a minimum of 1.5 million years (realistically, much longer), for a single point mutation is not timely adaptation in the face of any type of pressing evolutionary challenge. This is especially problematic when we consider that it is estimated that it only took six million years for the chimp and human genomes to diverge by over 5 % [1]. ,, While fixing one point mutation is problematic, our simulations show that the fixation of two co-dependent mutations is extremely problematic – requiring at least 84 million years (Table 2). This is ten-fold longer than the estimated time required for ape-to-man evolution,,, Certainly the creation and fixation of a string of three (requiring at least 380 million years) would be extremely untimely (and trivial in effect), in terms of the evolution of modern man.

,,, When we increase the hominin population from 10,000 to 1 million (our current upper limit for these types of experiments), the waiting time for creating a string of five is only reduced from two billion to 482 million years.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4573302/>

Ann Gauger and Doug Axe have also done work demonstrating the strict limits found for natural selection ever creating anything:

More from Ann Gauger on why humans didn't happen the way Darwin said – July 2012

Excerpt: Each of these new features probably required multiple mutations. Getting a feature that requires six neutral mutations is the limit of what bacteria can produce. For primates (e.g., monkeys, apes and humans) the limit is much more severe. Because of much smaller effective population sizes (an estimated ten thousand for humans instead of a billion for bacteria) and longer generation times (fifteen to twenty years per generation for humans vs. a thousand generations per year for bacteria), it would take a very long time for even a single beneficial mutation to appear and become fixed in a human population.

You don't have to take my word for it. In 2007, Durrett and Schmidt estimated in the journal *Genetics* that for a single mutation to occur in a nucleotide-binding site and be fixed in a primate lineage would require a waiting time of six million years. The same authors later estimated it would take 216 million years for the binding site to acquire two mutations, if the first mutation was neutral in its effect.

Facing Facts

But six million years is the entire time allotted for the transition from our last common ancestor with chimps to us according to the standard evolutionary timescale. Two hundred and sixteen million years takes us back to the Triassic, when the very first mammals appeared.,,,

<http://www.uncommondescent.com/intelligent-design/more-from-ann-gauger-on-why-humans-didnt-happen-the-way-darwin-said/>

And here is an excellent video that further drives the point home of what is termed "the waiting time problem" for natural selection.

In the video Dr. Richard Sternberg states **“Darwinism provided an explanation for the appearance of design, and argued that there is no Designer -- or, if you will, the designer is natural selection. If that's out of the way -- if that (natural selection) just does not explain the evidence -- then the flip side of that is, well, things appear designed because they are designed.**

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Richard Sternberg - Living Waters documentary

Whale Evolution vs. Population Genetics - Richard Sternberg and Paul Nelson - (excerpt from Living Waters video)

<https://www.youtube.com/watch?v=0csd3M4bc0Q>

The prediction of Junk DNA was not just some common sense prediction that followed somewhat directly from the premises of RM and NS, (random mutation and natural selection), of Darwinian evolution, but is a prediction that was born out of the mathematics of population genetics itself.

<https://uncommondescent.com/intelligent-design/larry-morans-uphill-battle-convincing-scientists-that-most-of-the-genome-is-junk-dna/#comment-698943>

And when looking at Natural Selection from the physical perspective of what is actually going on, that is to say when looking at Natural Selection with empirical evidence, then it is very easy to see exactly why Natural Selection is grossly inadequate as the supposed 'Designer substitute' that Darwinists have falsely imagined it to be.

The abject failure of Natural Selection on two levels of physical reality – video (2016) (princess and the pea paradox & quarter power scaling)

<https://youtu.be/ISu-09yq2Gc>

Genome-wide analysis of a long-term evolution experiment with *Drosophila* – 2010

Excerpt of concluding paragraph: **“Despite decades of sustained selection in relatively small, sexually reproducing laboratory populations, selection did not lead to the fixation of newly arising unconditionally advantageous alleles.** This is notable because in wild populations we expect the strength of natural selection to be less intense and the environment unlikely to remain constant for ~600 generations. Consequently, the probability of fixation in wild populations should be even lower than its likelihood in these experiments.”

http://www.homepages.ed.ac.uk/aspiliop//2010_2011/Burke%20et%20al%202010.pdf

“The Third Way” – James Shapiro, Denis Noble, and etc.. etc.,,,

excerpt: **“some Neo-Darwinists have elevated Natural Selection into a unique creative force that solves all the difficult evolutionary problems without a real empirical basis.”**

<http://www.thethirdwayofevolution.com/>

“the uncritical acceptance of natural selection as an explanatory force for all aspects of biodiversity (without any direct evidence) is not much different than invoking an intelligent designer”

Michael Lynch - The Origins of Genome Architecture, p 368

Many leading Darwinists, such as Dan Graur and Larry Moran, who are familiar with the failings of natural selection within the mathematics of population genetics now champion what is termed the neutral theory of molecular evolution which **holds that at the molecular level most evolutionary changes and most of the variation within and between species is not caused by natural selection but by genetic drift of mutant alleles that are neutral.**'

Neutral theory of molecular evolution

The neutral theory of molecular evolution holds that at the molecular level most evolutionary changes and most of the variation within and between species is not caused by natural selection but by genetic drift of mutant alleles that are neutral.

https://en.wikipedia.org/wiki/Neutral_theory_of_molecular_evolution

In regards to the neutral theory of evolution, Larry Moran stated,, **“The theory of genetic drift ... includes some of the most highly refined mathematical models in biology.”**

“The theory of genetic drift ... includes some of the most highly refined mathematical models in biology.”

- Larry Moran, a professor of Evolutionary Biology, quoting Futuyma

<http://www.uncommondescent.com/intelligent-design/are-some-of-our-opponents-in-the-grip-of-a-domineering-parasitical-ideology/#comment-587917>

Yet, what Larry Moran fails to mention in his claim that **“The theory of genetic drift ... includes some of the most highly refined mathematical models in biology.”** is that the theory of 'genetic drift' is actually the result of the failure of natural selection within the mathematics of population genetics,

In the following article Larry Moran quotes Austin Hughes who states, **'Darwinism asserts that natural selection is the driving force of evolutionary change. It is the claim of the neutral theory, on the other hand, that the majority of evolutionary change is due to chance.'**

Austin Hughes and Neutral Theory - Laurence A. Moran - June 19, 2017

Excerpt: Originally proposed by Motoo Kimura, Jack King, and Thomas Jukes, the neutral theory of molecular evolution is inherently non-Darwinian. **Darwinism asserts that natural selection is the driving force of evolutionary change. It is the claim of the neutral theory, on the other hand, that the majority of evolutionary change is due to chance.**

<http://sandwalk.blogspot.com/2017/06/austin-hughes-and-neutral-theory.html>

“many genomic features could not have emerged without a near-complete disengagement of the power of natural selection”

Michael Lynch - The Origins of Genome Architecture, intro

“a relative lack of natural selection may be the prerequisite for major evolutionary advance”

Mae Wan Ho - Beyond neo-Darwinism – Evolution by Absence of Selection

“We’ve been told by more than one of our colleagues that, even if Darwin was substantially wrong to claim that natural selection is the mechanism of evolution, nonetheless we shouldn’t say so. Not, anyhow, in public. To do that is, however inadvertently, to align oneself with the Forces of Darkness, whose goal it is to bring Science into disrepute. Well, we don’t agree. We think the way to discomfort the Forces of Darkness is to follow the arguments wherever they may lead, spreading such light as one can in the course of doing so. What makes the Forces of Darkness dark is that they aren’t willing to do that. What makes science scientific is that it is.”

Jerry Fodor and Massimo Piattelli-Palmarini – “What Darwin Got Wrong”

A Critique of Methodological Naturalism and Natural Selection - video

<https://www.youtube.com/watch?v=izyvj7L-es8>

Paper:

<https://docs.google.com/document/d/1akC-YzIn5gXU48B1af0XQYtJbtpEK8o2MGf7kl6cSpQ/edit>

“Shared Evolutionary History or Shared Design?” – Ann Gauger – January 1, 2015

Excerpt: **The waiting time required to achieve four mutations is 10^{15} years. That’s longer than the age of the universe. The real waiting time is likely to be much greater, since the two most likely candidate enzymes failed to be coopted by double mutations.**

http://www.evolutionnews.org/2015/01/happy_new_year092291.html

When Theory and Experiment Collide — April 16th, 2011 by Douglas Axe

Excerpt: **Based on our experimental observations and on calculations we made using a published population model [3], we estimated that Darwin’s mechanism would need a truly staggering amount of time—a trillion trillion years or more—to accomplish the seemingly subtle change in enzyme function that we studied.**

<http://biologicinstitute.org/2011/04/16/when-theory-and-experiment-collide/>

“the likelihood of developing two binding sites in a protein complex would be the square of the probability for getting one: a double CCC, 10^{20} times 10^{20} , which is 10^{40} . There have likely been fewer than 10^{40} cells in the world in the last 4 billion years, so the odds are against a single event of this variety in the history of life. It is biologically unreasonable.”

– Michael Behe – The Edge of Evolution – page 146

Thus, with Natural selection being tossed aside by the mathematics of population genetics, and by empirical evidence, as the explanation for the 'appearance of design' that we see in life, Darwinists did not accept such a devastating finding from mathematics as an outright falsification for their theory, as they should have done, but are instead now reduced to arguing that the 'appearance of design' that we see in life is, basically, the result of pure chance with natural selection now playing a very negligible role if any role at all.

To call such a move on the part of Darwinists disingenuous would be an understatement.

As William Murray commented on this development within Darwin's theory, **"One wonders what would have become of evolution had Darwin originally claimed that it was simply the accumulation of random, neutral variations that generated all of the deeply complex, organized, interdependent structures we find in biology? Would we even know his name today?"**

What exactly is Darwin really famous for now? Advancing a really popular, disproven idea (of Natural Selection), along the lines of Luminiferous Aether?

Without the erroneous but powerful meme of "survival of the fittest" to act as an opiate for the Victorian intelligentsia and as a rationale for 20th century fascism, how might history have proceeded under the influence of the less vitriolic maxim, "Survival of the Happenstance"?"

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- William J Murray

Ann Gauger on genetic drift - August 2012

Excerpt: The idea that evolution is driven by drift has led to a way of retrospectively estimating past genetic lineages. Called coalescent theory, it is based on one very simple assumption — that the vast majority of mutations are neutral and have no effect on an organism's survival. (For a review go here.) According to this theory, actual genetic history is presumed not to matter. Our genomes are full of randomly accumulating neutral changes. When generating a genealogy for those changes, their order of appearance doesn't matter. Trees can be drawn and mutations assigned to them without regard to an evolutionary sequence of genotypes, since genotypes don't matter.

<http://www.uncommondescent.com/evolution/ann-gauger-on-genetic-drift/>

Majestic Ascent: Berlinski on Darwin on Trial - David Berlinski - November 2011

Excerpt: The publication in 1983 of Motoo Kimura's *The Neutral Theory of Molecular Evolution* consolidated ideas that Kimura had introduced in the late 1960s. On the molecular level, evolution is entirely stochastic, and if it proceeds at all, it proceeds by drift along a leaves-and-current model. Kimura's theories left the emergence of complex biological structures an enigma (since natural selection was no longer the supposed 'designer substitute'), but they played an important role in the local economy of belief. They allowed biologists to affirm that they welcomed responsible criticism. "A critique of neo-Darwinism," the Dutch biologist Gert Korthof boasted, "can be incorporated into neo-Darwinism if there is evidence and a good theory, which contributes to the progress of science."

By this standard, if the Archangel Gabriel were to accept personal responsibility for the Cambrian explosion, his views would be widely described as neo-Darwinian.

http://www.evolutionnews.org/2011/11/berlinski_on_darwin_on_trial053171.html

Moreover, the mathematics of population genetics goes even further than just throwing natural selection overboard as to undermining the Darwinian worldview from within. In this following video and article, Donald Hoffman has, through numerous computer simulations of population genetics shown that if Darwinian evolution were actually true then all our observations of reality would be unreliable.

Donald Hoffman: Do we see reality as it is? – Video – 9:59 minute mark

Quote: “fitness does depend on reality as it is, yes.,,, Fitness is not the same thing as reality as it is, and it is fitness, and not reality as it is, that figures centrally in the equations of evolution. So, in my lab, we have run hundreds of thousands of evolutionary game simulations with lots of different randomly chosen worlds and organisms that compete for resources in those worlds. Some of the organisms see all of the reality. Others see just part of the reality. And some see none of the reality. Only fitness. Who wins? **Well I hate to break it to you but perception of reality goes extinct. In almost every simulation, organisms that see none of reality, but are just tuned to fitness, drive to extinction that perceive reality as it is.** So the bottom line is, evolution does not favor veridical, or accurate perceptions. Those (accurate) perceptions of reality go extinct. Now this is a bit stunning. How can it be that not seeing the world accurately gives us a survival advantage?”

<https://youtu.be/oYp5XuGYqqY?t=601>

The Evolutionary Argument Against Reality – April 2016

The cognitive scientist Donald Hoffman uses evolutionary game theory to show that our perceptions of an independent reality must be illusions.

Excerpt: “The classic argument is that those of our ancestors who saw more accurately had a competitive advantage over those who saw less accurately and thus were more likely to pass on their genes that coded for those more accurate perceptions, so after thousands of generations we can be quite confident that we’re the offspring of those who saw accurately, and so we see accurately. That sounds very plausible. But I think it is utterly false. It misunderstands the fundamental fact about evolution, which is that it’s about fitness functions — mathematical functions that describe how well a given strategy achieves the goals of survival and reproduction. **The mathematical physicist Chetan Prakash proved a theorem that I devised that says: According to evolution by natural selection, an organism that sees reality as it is will never be more fit than an organism of equal complexity that sees none of reality but is just tuned to fitness. Never.**”

<https://www.quantamagazine.org/20160421-the-evolutionary-argument-against-reality/>

The Interface Theory of Perception

Donald D. Hoffman & Manish Singh & Chetan Prakash

<http://people.psych.cornell.edu/~jec7/pcd%202015-16%20pubs/interface.pdf>

[http://rucss.rutgers.edu/images/personal-manish-singh/papers/Probing_ITP_2015_PBR.](http://rucss.rutgers.edu/images/personal-manish-singh/papers/Probing_ITP_2015_PBR.pdf)

[pdf](#) (follow-up discussion)

Although Hoffman tried to limit his results to just our visual perceptions, as the following article points out, and as Alvin Plantinga had pointed out years before Hoffman came along, there is no reason why Hoffman's results from population genetics do not also extend to the undermining of our cognitive faculties as well:

The Case Against Reality - May 13, 2016

Excerpt: Hoffman seems to come to a conclusion similar to the one Alvin Plantinga argues in ch. 10 of *Where the Conflict Really Lies*: we should not expect — in the absence of further argument — that creatures formed by a naturalistic evolutionary process would have veridical perceptions.,,,

First, even if Hoffman's argument were restricted to visual perception, and not to our cognitive faculties more generally (e.g., memory, introspection, a priori rational insight, testimonial belief, inferential reasoning, etc.), the conclusion that our visual perceptions would be wholly unreliable given natural selection would be sufficient for Plantinga's conclusion of self-defeat. After all, reliance upon the veridicality of our visual perceptions was and always will be crucial for any scientific argument for the truth of evolution. So if these perceptions cannot be trusted, we have little reason to think evolutionary theory is true.

Second, it's not clear that Hoffman's application of evolutionary game theory is only specially applicable to visual perception, rather than being relevant for our cognitive faculties generally. **If “we find that veridical perceptions can be driven to extinction by non-veridical strategies that are tuned to utility rather than objective reality” (2010, p. 504, my emphasis), then why wouldn't veridical cognitive faculties (more generally) be driven to extinction by non-veridical strategies that are tuned to utility rather than objective reality? After all, evolutionary theory purports to be the true account of the formation of all of our cognitive faculties, not just our faculty of visual perception.** If evolutionary game theory proves that “true perception generally goes extinct” when “animals that perceive the truth compete with others that sacrifice truth for speed and energy-efficiency” (2008), why wouldn't there be a similar sacrifice with respect to other cognitive faculties? In fact, Hoffman regards the following theorem as now proven: “According to evolution by natural selection, an organism that sees reality as it is will never be more fit than an organism of equal complexity that sees none of reality but is just tuned to fitness” (Atlantic interview). But then wouldn't it also be the case that an organism that cognizes reality as it is will never be more fit than an organism of equal complexity that cognizes none of reality but is just tuned to fitness? On the evolutionary story, every cognitive faculty we have was produced by a process that was tuned to fitness (rather than tuned to some other value, such as truth).

<http://www.gregwelty.com/2016/05/the-case-against-reality/>

Thus, in what should be needless to say, a worldview that undermines the scientific method itself by holding all our observations of reality, and cognitive faculties, are unreliable is NOT a worldview that can ever be firmly grounded within the scientific method!

Experimental Design in Science: Definition and Method

https://www.tes.com/lessons/SKi_IXHNoAyaqA/experimental-design

Steps of the Scientific Method

Observation/Research

Hypothesis

Prediction

Experimentation

Conclusion

http://www.sciencemadesimple.com/scientific_method.html

Why Evolutionary Theory Cannot Survive Itself – Nancy Pearcey – March 8, 2015

Excerpt: Steven Pinker writes, “Our brains were shaped for fitness, not for truth.

Sometimes the truth is adaptive, but sometimes it is not.” The upshot is that survival is no guarantee of truth. If survival is the only standard, we can never know which ideas are true and which are adaptive but false.

To make the dilemma even more puzzling, evolutionists tell us that natural selection has produced all sorts of false concepts in the human mind. Many evolutionary materialists maintain that free will is an illusion, consciousness is an illusion, even our sense of self is an illusion — and that all these false ideas were selected for their survival value.

So how can we know whether the theory of evolution itself is one of those false ideas?

The theory undercuts itself.,,,

Of course, the atheist pursuing his research has no choice but to rely on rationality, just as everyone else does. The point is that he has no philosophical basis for doing so. Only those who affirm a rational Creator have a basis for trusting human rationality.

The reason so few atheists and materialists seem to recognize the problem is that, like Darwin, they apply their skepticism selectively. They apply it to undercut only ideas they reject, especially ideas about God. They make a tacit exception for their own worldview commitments.

http://www.evolutionnews.org/2015/03/why_evolutionar094171.html

Moreover, completely contrary to what Donald Hoffman found from the mathematics of population genetics,, conscious observation, far from being unreliable, is experimentally found to be far more integral to reality, i.e. far more reliable of reality, than the mathematics of population genetics had predicted. In the following experiment, it was found that reality doesn't exist without an observer.

New Mind-blowing Experiment Confirms That Reality Doesn't Exist If You Are Not Looking at It – June 3, 2015

Excerpt: The results of the Australian scientists' experiment, which were published in the journal Nature Physics, show that this choice is determined by the way the object is measured, which is in accordance with what quantum theory predicts.

“It proves that measurement is everything. At the quantum level, reality does not exist if you are not looking at it,” said lead researcher Dr. Andrew Truscott in a press release.,,,

“The atoms did not travel from A to B. It was only when they were measured at the end of the journey that their wave-like or particle-like behavior was brought into existence,” he said.

Thus, this experiment adds to the validity of the quantum theory and provides new evidence to the idea that reality doesn't exist without an observer.

<http://themindunleashed.org/2015/06/new-mind-blowing-experiment-confirms-that-reality-doesnt-exist-if-you-are-not-looking-at-it.html>

Apparently science itself could care less if Darwinists are forced to believe, because of the mathematics of population genetics, that their observations of reality are unreliable!

The Scientific Method - Richard Feynman - video

Quote: **'If it disagrees with experiment, it's wrong. In that simple statement is the key to science. It doesn't make any difference how beautiful your guess is, it doesn't matter how smart you are who made the guess, or what his name is... If it disagrees with experiment, it's wrong. That's all there is to it.'**

<https://www.youtube.com/watch?v=OL6-x0modwY>

Despite all the bluff and bluster you may hear from Darwinists on the Internet, Darwinists simply have no realistic mathematical model to support their claims.

For example, recently William Basener and John Sanford, when they applied realistic ratios of detrimental mutations to beneficial mutations,,,

Multiple Overlapping Genetic Codes Profoundly Reduce the Probability of Beneficial Mutation George Montañez 1, Robert J. Marks II 2, Jorge Fernandez 3 and John C. Sanford 4 - May 2013

Excerpt: **It is almost universally acknowledged that beneficial mutations are rare compared to deleterious mutations [1–10].,, It appears that beneficial mutations may be too rare to actually allow the accurate measurement of how rare they are [11].**

1. Kibota T, Lynch M (1996) Estimate of the genomic mutation rate deleterious to overall fitness in *E. coli*. *Nature* 381:694–696.
 2. Charlesworth B, Charlesworth D (1998) Some evolutionary consequences of deleterious mutations. *Genetica* 103: 3–19.
 3. Elena S, et al (1998) Distribution of fitness effects caused by random insertion mutations in *Escherichia coli*. *Genetica* 102/103: 349–358.
 4. Gerrish P, Lenski R N (1998) The fate of competing beneficial mutations in an asexual population. *Genetica* 102/103:127–144.
 5. Crow J (2000) The origins, patterns, and implications of human spontaneous mutation. *Nature Reviews* 1:40–47.
 6. Bataillon T (2000) Estimation of spontaneous genome-wide mutation rate parameters: whither beneficial mutations? *Heredity* 84:497–501.
 7. Imhof M, Schlotterer C (2001) Fitness effects of advantageous mutations in evolving *Escherichia coli* populations. *Proc Natl Acad Sci USA* 98:1113–1117.
 8. Orr H (2003) The distribution of fitness effects among beneficial mutations. *Genetics* 163: 1519–1526.
 9. Keightley P, Lynch M (2003) Toward a realistic model of mutations affecting fitness. *Evolution* 57:683–685.
 10. Barrett R, et al (2006) The distribution of beneficial mutation effects under strong selection. *Genetics* 174:2071–2079.
 11. Bataillon T (2000) Estimation of spontaneous genome-wide mutation rate parameters: whither beneficial mutations? *Heredity* 84:497–501.
- http://www.worldscientific.com/doi/pdf/10.1142/9789814508728_0006

,,, to Ronald A. Fisher's (1890-1962) supposed mathematical proof for Darwinian evolution they found that **Fisher's belief that he had developed a mathematical proof that fitness must always increase is falsified.**

Peer-Reviewed Science: A **"Mathematical Proof of Darwinian Evolution" Is Falsified**
- January 5, 2018

Excerpt: Because the premise underlying Fisher's corollary is now recognized to be entirely wrong, Fisher's corollary is falsified. Consequently, **Fisher's belief that he had developed a mathematical proof that fitness must always increase is also falsified.**
<https://evolutionnews.org/2018/01/peer-reviewed-science-a-mathematical-proof-of-darwinian-evolution-is-falsified/>

Defending the validity and significance of the new theorem "Fundamental Theorem of Natural Selection With Mutations, Part I: Fisher's Impact – Bill Basener and John Sanford - February 15, 2018

Excerpt: While Fisher's Theorem is mathematically correct, his Corollary is false. The simple logical fallacy is that Fisher stated that mutations could effectively be treated as not impacting fitness, while it is now known that the vast majority of mutations are deleterious, providing a downward pressure on fitness. Our model and our correction of Fisher's theorem (The Fundamental Theorem of Natural Selection with Mutations), take into account the tension between the upward force of selection with the downward force of mutations.,,,

Our paper shows that Fisher's corollary is clearly false, and that he misunderstood the implications of his own theorem. He incorrectly believed that his theorem was a mathematical proof that showed that natural selection plus mutation will necessarily and always increase fitness. He also believed his theorem was on a par with a natural law (such as entropic dissipation and the second law of thermodynamics). Because Fisher did not understand the actual fitness distribution of new mutations, his belief in the application of his "fundamental theorem of natural selection" was fundamentally and profoundly wrong – having little correspondence to biological reality. Therefore, we have reformulated Fisher's model and have corrected his errors, thereby have established a new theorem that better describes biological reality, and allows for the specification of those key variables that will determine whether fitness will increase or decrease.

<http://theskepticalzone.com/wp/defending-the-validity-and-significance-of-the-new-theorem-fundamental-theorem-of-natural-selection-with-mutations-part-i-fishers-impact/>

In response to this recent paper by Basener and Sanford that falsified Fisher's supposed mathematical proof for Darwinian evolution, a Darwinist named Bob O'Hara tried to bring up the Price equation. Which is an equation that had supposedly solved some of the insurmountable difficulties that are found within Fisher's supposed mathematical proof of Darwinian evolution.,,,

"It's a shame Basener is either unaware of the Price equation, or couldn't see how to apply it to this situation"

Bob O'Hara - statistician

<https://uncommondescent.com/intelligent-design/fishers-proof-of-darwinian-evolution-has-been-flipped/#comment-646565>

Fisher's Proof of Darwinism Flipped: William Basener replies to Bob O'Hara - Jan. 2018
<https://uncommondescent.com/intelligent-design/fishers-proof-of-darwinism-flipped-william-basener-replies-to-bob-ohara/>

Yet, as the following article points out, **the Price equation does not explain at all how new systems arise in the species in the first place. It gets them as input systems already created by an unknown organizational cause. But the Darwinist claim is that evolution does create biological systems, and the Price equation, like the Hardy-Weinberg law, helps exactly zero to explain such creation.** So the initial question, how well (does) math support Darwinian evolution, (here's) the short answer: it doesn't support evolution at all.

The equations of evolution - niwrad - March 24, 2013

Excerpt: Darwin introduced no math whatsoever in his theory of origin of species. Darwin hated math (not by chance). Therefore one had to wait for few XX century mathematicians before seeing some math in evolutionary theory. It is specifically in population genetics that one finally encounters some applications of probability theory and statistics. They consist basically in two main equations: the Hardy-Weinberg law and the Price equation.,,,

To claim that the Hardy-Weinberg law explains evolution is as to say that in mechanics a principle of statics (immobility) explains dynamics (movement and the forces causing it),,,

For a detailed critic of Price's analysis by serious statisticians see here.,,,

"the data explain the data" [...] "for doing statistics the Price equation did not help" [...] "can't think of anything remotely useful about the Price equation" [...] "some of us remember a feeling of doubt when first confronted with the Price equation, it may be a relief to hear John Maynard Smith [the famous evolutionist] say 'I'm not going to tell you what Price's theorem is, because I don't actually understand it' ..."

The final point to take is that, also to be very generous, **the Price equation does not explain at all how new systems arise in the species in the first place. It gets them as input systems already created by an unknown organizational cause. But the Darwinist claim is that evolution does create biological systems, and the Price equation, like the Hardy-Weinberg law, helps exactly zero to explain such creation.** So the initial question, how well (does) math support Darwinian evolution, (here's) the short answer: it doesn't support evolution at all.

<http://www.uncommondescent.com/intelligent-design/the-equations-of-evolution/>

How to Quit the Price Equation

Excerpt: The Price equation zooms in on transitions from one generation to the next. This suggests that it could be a fundamental tool for understanding this process of evolution. It was formulated by **George Richard Price in 1970 in an article in Nature, and acclaimed by some, maybe even quite a few, to be a fundamental ingredient for models of evolution (Gardner, Frank, Grafen). We think not. The reason why it is hard to identify it as such is that it is all about probability theory and statistics,** and those two topics are just not that easy. The following tutorial will help by looking at what proper probability theory or statistics would do and compare that to what the Price equation does to numbers that represent those transitions.,,,
the Price equation is not what some say it is.

<http://evolutionandgames.nl/wiki/index.php?title=Price>

In Frank (1995), I wrote: 'What problems can the Price equation solve that cannot be solved by other methods?

The answer is, of course, none, because **the Price Equation is derived from, and is no more than, a set of notational conventions. It is a mathematical tautology**'.

Nowak & Highfield (2011) and van Veelen et al. (2012) emphasize the same point in their critique of the Price equation, although they present the argument as a novel insight without attribution. Given that the Price equation is a set of notational conventions, it cannot uniquely specify any predictions or insights.,,,

From Frank, Natural Selection, Price Equation 2012

<http://www.uncommondescent.com/intelligent-design/a-new-take-on-prey-who-warn-predators-of-danger/#comment-571064>

There simply is no realistic mathematical model for Darwinian evolution that Darwinists can appeal to. As leading mathematician Gregory Chaitin himself conceded, **'it is a mathematical scandal that we do not have proof that Darwinian evolution works.'**

Active Information in Metabiology – Winston Ewert, William A. Dembski, Robert J. Marks II – 2013

Except page 9: Chaitin states [3], **“For many years I have thought that it is a mathematical scandal that we do not have proof that Darwinian evolution works.” In fact, mathematics has consistently demonstrated that undirected Darwinian evolution does not work.**

<http://bio-complexity.org/ojs/index.php/main/article/view/BIO-C.2013.4/BIO-C.2013.4>

Top Ten Questions and Objections to 'Introduction to Evolutionary Informatics' – Robert J. Marks II – June 12, 2017

Excerpt: **“There exists no model successfully describing undirected Darwinian evolution. Hard sciences are built on foundations of mathematics or definitive simulations. Examples include electromagnetics, Newtonian mechanics, geophysics, relativity, thermodynamics, quantum mechanics, optics, and many areas in biology. Those hoping to establish Darwinian evolution as a hard science with a model have either failed or inadvertently cheated. These models contain guidance mechanisms to land the airplane squarely on the target runway despite stochastic wind gusts. Not only can the guiding assistance be specifically identified in each proposed evolution model, its contribution to the success can be measured, in bits, as active information.,,,”,,, “there exists no model successfully describing undirected Darwinian evolution. According to our current understanding, there never will be.,,,”**

<https://evolutionnews.org/2017/06/top-ten-questions-and-objections-to-introduction-to-evolutionary-informatics/>

Father of Neo-Darwinism Condemned with Faint Praise - Sal Cordova

- NAS Member's Comedic Eulogy of Fisher's Theorem of Natural Selection - Jan. 11, 2018

Excerpt: Bill Basener and John Sanford recently provided a correction to Fisher's equations in the FNSF-FTNS (12/22/17) that demonstrated real evolution proceeds

toward destruction rather than construction of biological function. It basically flips Fisher's theorem upside down.

„something odd happened at the 37th memorial lecture on January 4, 2018 meant to honor the memory of the late R. A. Fisher. Joe Felsenstein (a National Academy of Science member) condemned Fisher's work with faint praise. Basically, he criticized Fisher's famous theorem but tried to do it in a nice way. (After all, this was a memorial lecture intended to honor Fisher's accomplishments.) As with many eulogies, Felsenstein tried to put as much whitewash on the failures of the deceased individual as possible. He said:

"In spite of Fisher's assertion that the theorem "hold[s] the supreme position among the biological sciences", the Fundamental Theorem is, alas, not-so-fundamental."

So there was the criticism. Now,,,,

"I will not attempt to revive the FTNS [Fisher's Fundamental Theorem of Natural Selection which turned out not to be so fundamental after all], but instead am trying to extend a 1978 model of mine, put forth in what may be my least-cited paper. This attempts to make a "toy" model of an evolving population...."

Translation: „, I have to make a 'toy model' of evolving populations, because real models are mathematically intractable, and it's better to have a model that gives inaccurate answers than no model at all.

The comedy continues:

"The models are somewhat absurdly oversimple, but I argue that models like this at least can give us some results, which decades of more handwavy papers on the general connection between evolution, entropy, and information have not."

Translation: **My model is absurd, but it's better than the other absurd handwavy models out there. This lecture is in honor of RA Fisher. He made a model of evolution that is also oversimplified, was wrong, and now it's my turn to do the same.,,,**

<https://crev.info/2018/01/fisher-darwin-faint-praise/>

Reality simply does not comport to Darwinian presuppositions. One of the primary reasons why we know that Darwinists will never be able to build a realistic mathematical model for their theory is because there simply is no known law of evolution within the physical universe.,,,

Laws of science

- 1 Conservation laws
 - 1.1 Conservation and symmetry
 - 1.2 Continuity and transfer
- 2 Laws of classical mechanics
 - 2.1 Principle of least action
- 3 Laws of gravitation and relativity
 - 3.1 Modern laws
 - 3.2 Classical laws
- 4 Thermodynamics
- 5 Electromagnetism
- 6 Photonics
- 7 Laws of quantum mechanics
- 8 Radiation laws
- 9 Laws of chemistry

10 Geophysical laws
https://en.wikipedia.org/wiki/Laws_of_science

,,, A law for Darwinists to build a rigid mathematical basis upon. As Ernst Mayr himself conceded, **“In biology, as several other people have shown, and I totally agree with them, there are no natural laws in biology corresponding to the natural laws of the physical sciences.”**

The Evolution of Ernst: Interview with Ernst Mayr - 2004 (page 2 of 14)
Excerpt: biology (Darwinian Evolution) differs from the physical sciences in that in the physical sciences, all theories, I don't know exceptions so I think it's probably a safe statement, **all theories are based somehow or other on natural laws. In biology, as several other people have shown, and I totally agree with them, there are no natural laws in biology corresponding to the natural laws of the physical sciences.**
,, And so that's what I do in this book. I show that the theoretical basis, you might call it, or I prefer to call it the philosophy of biology, has a totally different basis than the theories of physics.
<https://www.scientificamerican.com/media/pdf/0004D8E1-178C-10EB-978C83414B7F012C.pdf>

In the following article, Roger Highfield makes much the same observation as Ernst Mayr and states, ,, **Whatever the case, those universal truths—'laws'—that physicists and chemists all rely upon appear relatively absent from biology.**

WHAT SCIENTIFIC IDEA IS READY FOR RETIREMENT? Evolution is True – Roger Highfield – January 2014
Excerpt: If evolutionary biologists are really Seekers of the Truth, they need to focus more on finding the mathematical regularities of biology, following in the giant footsteps of Sewall Wright, JBS Haldane, Ronald Fisher and so on.
,,, **Whatever the case, those universal truths—'laws'—that physicists and chemists all rely upon appear relatively absent from biology.**
Little seems to have changed from a decade ago when the late and great John Maynard Smith wrote a chapter on evolutionary game theory for a book on the most powerful equations of science: his contribution did not include a single equation.
<http://www.edge.org/response-detail/25468>

Professor Murray Eden of MIT, in a paper entitled **“Inadequacies of Neo-Darwinian Evolution as a Scientific Theory”** stated that **“the randomness postulate is highly implausible and that an adequate scientific theory of evolution must await the discovery and elucidation of new natural laws—physical, physico-chemical, and biological.”**

“It is our contention that if ‘random’ is given a serious and crucial interpretation from a probabilistic point of view, **the randomness postulate is highly implausible and that an adequate scientific theory of evolution must await the discovery and elucidation of new natural laws—physical, physico-chemical, and biological.**”
Murray Eden, **“Inadequacies of Neo-Darwinian Evolution as a Scientific Theory,” Mathematical Challenges to the Neo-Darwinian Interpretation of Evolution**, editors Paul S. Moorhead and Martin M. Kaplan, June 1967, p. 109.

https://people.eecs.berkeley.edu/~christos/evol/compevol_files/Wistar-Eden-1.pdf

In fact, not only is there no 'law of evolution' within the known physical universe for Darwinists to build a realistic mathematical model upon, the second law of thermodynamics, entropy, a law with great mathematical explanatory power in science,,,

Shining Light on Dark Energy – October 21, 2012

Excerpt: **It (Entropy) explains time; it explains every possible action in the universe;**,

Even gravity, Vedral argued, can be expressed as a consequence of the law of entropy. ,,,

The principles of thermodynamics are at their roots all to do with information theory. Information theory is simply an embodiment of how we interact with the universe —,,

<http://crev.info/2012/10/shining-light-on-dark-energy/>

The Quantum Thermodynamics Revolution – May 2017

Excerpt: the 19th-century physicist James Clerk Maxwell put it, **“The idea of dissipation of energy depends on the extent of our knowledge.”**

In recent years, a revolutionary understanding of thermodynamics has emerged that explains this subjectivity using quantum information theory ,,

,,— the abstract 1s and 0s by which physical states are distinguished and knowledge is measured.,,,

Renato Renner, a professor at ETH Zurich in Switzerland, described this as a radical shift in perspective. Fifteen years ago, “we thought of entropy as a property of a thermodynamic system,” he said. **“Now in information theory, we wouldn’t say entropy is a property of a system, but a property of an observer who describes a system.”** ,,,

<https://www.quantamagazine.org/quantum-thermodynamics-revolution/>

,, almost directly, if not directly, contradicts the primary Darwinian claim that greater and greater levels of functional complexity can easily be had and/or 'naturally selected' for over long periods of time. Indeed, entropy's main claim is that, over long periods of time, everything in the universe will decay into simpler and simpler states until what is termed thermodynamic equilibrium is finally reached.

Diffusion - image

<https://upload.wikimedia.org/wikipedia/commons/thumb/1/12/Diffusion.svg/220px-Diffusion.svg.png>

As the following video and papers show, entropy is a far greater problem for Darwinists than they are ever willing to openly admit in public.

Evolution vs Entropy - video

<https://www.youtube.com/watch?v=SGaSE-Q8nDU>

Evolution vs. Entropy - paper

<https://docs.google.com/document/d/1zTsUSGSSGTII-pN8dBWfhiYGEaO0m5bPfw6bbv aeJEs/edit>

Genetic Entropy – references to several peer reviewed numerical simulations analyzing and falsifying all flavors of Darwinian evolution,, (via John Sanford and company)
<http://www.geneticentropy.org/#!properties/ctzx>

Besides having no universal physical law to build a realistic mathematical model upon, another reason Darwinists will never be able to build a realistic mathematical model for their theory is that Biological form, as this following video shows, is not even reducible to mutations in DNA in the first place as is presupposed in Darwinian thought.

Darwinism vs Biological Form - video

<https://www.youtube.com/watch?v=JyNzNPqjM4w>

Paper:

<https://docs.google.com/document/d/1t8g9fXk9H7A-s1APa8Y90AGv6iKkJshzbiDVkTqBEI0/edit>

In fact, mathematics itself now also proves that the reductive materialistic presuppositions of Darwinists are wrong. In the following article, which extended Godel and Turing's work on incompleteness to quantum physics, and which studied the (dear rivation) derivation of macroscopic properties from a complete microscopic description, the researchers remark that **even a perfect and complete description of the microscopic properties of a material is not enough to predict its macroscopic behaviour.,,,** The researchers further commented that their findings **challenge the reductionists' point of view, as the insurmountable difficulty lies precisely in the derivation of macroscopic properties from a microscopic description."**

Quantum physics problem proved unsolvable: Godel and Turing enter quantum physics - December 9, 2015

Excerpt: A mathematical problem underlying fundamental questions in particle and quantum physics is provably unsolvable.,,,

It is the first major problem in physics for which such a fundamental limitation could be proven. The findings are important because they show that **even a perfect and complete description of the microscopic properties of a material is not enough to predict its macroscopic behaviour.,,,**

"We knew about the possibility of problems that are undecidable in principle since the works of Turing and Gödel in the 1930s," added Co-author Professor Michael Wolf from Technical University of Munich. "So far, however, this only concerned the very abstract corners of theoretical computer science and mathematical logic. No one had seriously contemplated this as a possibility right in the heart of theoretical physics before. But our results change this picture. From a more philosophical perspective, they also **challenge the reductionists' point of view, as the insurmountable difficulty lies precisely in the derivation of macroscopic properties from a microscopic description."**

<http://phys.org/news/2015-12-quantum-physics-problem-unsolvable-godel.html>

Thus, since Darwinists presuppose reductive materialism to be true in their theory,,

Reductive Materialism

The view that only the material world (matter) is truly real, and that all processes and realities observed in the universe can be explained by reducing them down to their most basic scientific components, e.g., atoms, molecules, and everything else thought to make up what we know as "matter."

<http://www.pbs.org/faithandreason/gen gloss/reduc-body.html>

„, and yet mathematics itself proves that you cannot predict macroscopic behavior from a complete microscopic description, then it is obvious that Darwinists will NEVER be able to build a realistic mathematical model for their theory.

And as the following video also shows, recent advances in quantum biology also now show us that Darwinists, with their reductive materialistic framework, are on a completely incorrect theoretical framework to begin with in order to try and understand biological organisms.

Darwinian Materialism vs. Quantum Biology - video

<https://youtu.be/LHdD2Am1q5Y>

- paper

<https://docs.google.com/document/d/1Jl6cNzaAzQ83RMo4H887PVWXUOw2QWyy2I1lk6EPs4/edit>

Thus with no possible realistic mathematical model available to Darwinists, to ever rigidly test against, as other overarching theories of science have a rigid mathematical basis to test against,,,

“On the other hand, I disagree that Darwin’s theory is as `solid as any explanation in science.; Disagree? I regard the claim as preposterous. Quantum electrodynamics is accurate to thirteen or so decimal places; so, too, general relativity. A leaf trembling in the wrong way would suffice to shatter either theory. What can Darwinian theory offer in comparison?”

- Berlinski, D., “A Scientific Scandal?: David Berlinski & Critics,” Commentary, July 8, 2003

<http://www.uncommondescent.com/intelligent-design/quote-of-the-day-8/>

,,, Darwinian evolution therefore, does not, and never will, qualify as a real science in the first place but will forever be more realistically classified as a unfalsifiable pseudo-science. Here are a few more references that further drive this point home.

Darwinian Evolution: A Pseudoscience based on Unrestrained Imagination and Bad Liberal Theology - video

<https://youtu.be/KeDi6gUMQJQ>

Paper:

https://docs.google.com/document/d/1aT_Thrfqs9sdT0Hsg2y3hxDntCD8mypi2AO_Riee8/edit

Darwinian Evolution Fails the Five Standard Tests of a Scientific Hypothesis - video

https://www.youtube.com/watch?v=L7f_fyoPybw

- paper

https://docs.google.com/document/d/15p_qQGjQE-2-Q60Hsh513Beb3sISPHyOtaM1oIPw1OM/edit

Deeper into the Royal Society Evolution Paradigm Shift Meeting – 02/08/2016
Suzan Mazur: **Peter Saunders in his interview comments to me said that neo-Darwinism is not a theory, it's a paradigm and the reason it's not a theory is that it's not falsifiable.**

http://www.huffingtonpost.com/suzan-mazur/john-dupre-interview-deep_b_9184812.html

Peter Saunders is Co-Director, Institute of Science in Society, London; Emeritus professor of Applied Mathematics, King's College London.

Peter Saunders has been applying mathematics in biology for over 40 years, in microbiology and physiology as well as in development and evolution. He has been a critic of neo-Darwinism for almost as long.

"In so far as a scientific statement speaks about reality, it must be falsifiable; and in so far as it is not falsifiable, it does not speak about reality."

Karl Popper - The Two Fundamental Problems of the Theory of Knowledge (2014 edition), Routledge

<http://izquotes.com/quote/147518>

A Philosophical Question...Does Evolution have a Hard Core ?

Some Concluding Food for Thought

In my research on the demarcation problem, I have noticed philosophers of science attempting to balance (usually unconsciously) a consistent demarcation criteria against the disruptive effects that its application might have with regard to the academic status quo (and evolution in particular)... Few philosophers of science will even touch such matters, but (perhaps unintentionally) Imre Lakatos does offer us a peek at how one might go about balancing these schizophrenic demands (in Motterlini1999: 24)

"Let us call the first school militant positivism; you will understand why later on. The problem of this school was to find certain demarcation criteria similar to those I have outlined, but these also had to satisfy certain boundary conditions, as a mathematician would say. I am referring to a definite set of people to which most scientists as well as Popper and Carnap would belong. These people think that there are goodies and baddies among scientific theories, and once you have defined a demarcation criterion, you should divide all your theories between the two groups. You would end up, for example, with a goodies list including Copernicus's (Theory1), Galileo's (T2), Kepler's (T3), Newton's (T4) ... and Einstein's (T5), along with (but this is just my supposition) Darwin's (T6). Let me just anticipate that **nobody to date has yet found a demarcation criterion according to which Darwin can be described as scientific, but this is exactly what we are looking for.**"

So basically, the demarcation problem is a fun game philosophers enjoy playing, but when they realize the implications regarding the theory of evolution, they quickly back off...

http://www.samizdat.gc.ca/cosmos/philo/hardcore_pg.htm

One concluding thought,,,,, seeing that Godel has shown that mathematics itself is incomplete, and thus mathematics can never have the ultimate truth about reality contained within itself, and that mathematics can therefore, at best, only point us towards the ultimate truth about reality, it

is interesting to note that when we rightly let the Agent Causality of God back into the picture of modern physics, as the Christian founders of modern science had originally envisioned, then an empirically backed reconciliation between quantum mechanics and general relativity, into the much sought after 'Theory of Everything', readily pops out for us in Christ's resurrection from the dead. The following video goes over the evidence supporting that claim:

Gödel, Infinity, and Jesus Christ as the Theory of Everything - video

<https://youtu.be/x1Jw5Y686jY>

paper

<https://docs.google.com/document/d/1MnjZgfG35RjfcO27iFKevX5idKT5vCRD1gOagLe7ZRY/edit>

Quantum Mechanics, Special Relativity, General Relativity and Christianity - video

<https://www.youtube.com/watch?v=gKggH8jO0pk>

Paper:

https://docs.google.com/document/d/1nRZECqs8lqeqv0GzP5IV6et_K9_rYrz06Tchoa4U0Rw/edit

Well, that's the end of the video, and again I remind viewers that all papers and videos referenced in this video may be accessed in the link provided in the video description.

Thanks for watching!

Verse:

Colossians 1:15-20

The Son is the image of the invisible God, the firstborn over all creation. For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together. And he is the head of the body, the church; he is the beginning and the firstborn from among the dead, so that in everything he might have the supremacy. For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross.