

The full paper on which this presentation is based has been accepted for publication and will appear in a future issue (expected before the end of 2017) of The Journal of the Biblical Foundations of Faith and Learning:  
<http://knowledge.e.southern.edu/jbfft/>

Question:

- “In what ways does a scientist who embraces a Christian worldview practice science differently from one who subscribes to an atheistic worldview?”

Response given after careful consideration:

- “None.”

I recently asked a colleague who teaches at a Christian university the question, “In what ways does a scientist who embraces a Christian worldview practice science differently from one who subscribes to an atheistic worldview?” After several hours, an interval whose length indicated to me not only how busy my colleague was but also the careful consideration / devoted to formulating the answer, the response given was: “None.”

## HOW OUR WORLDVIEW AFFECTS OUR SCIENCE

No difference! ?

“Science is science is science”

Insensitive to presuppositions  
and worldviews

Always done in the same way

Check beliefs and prejudices  
at the door?

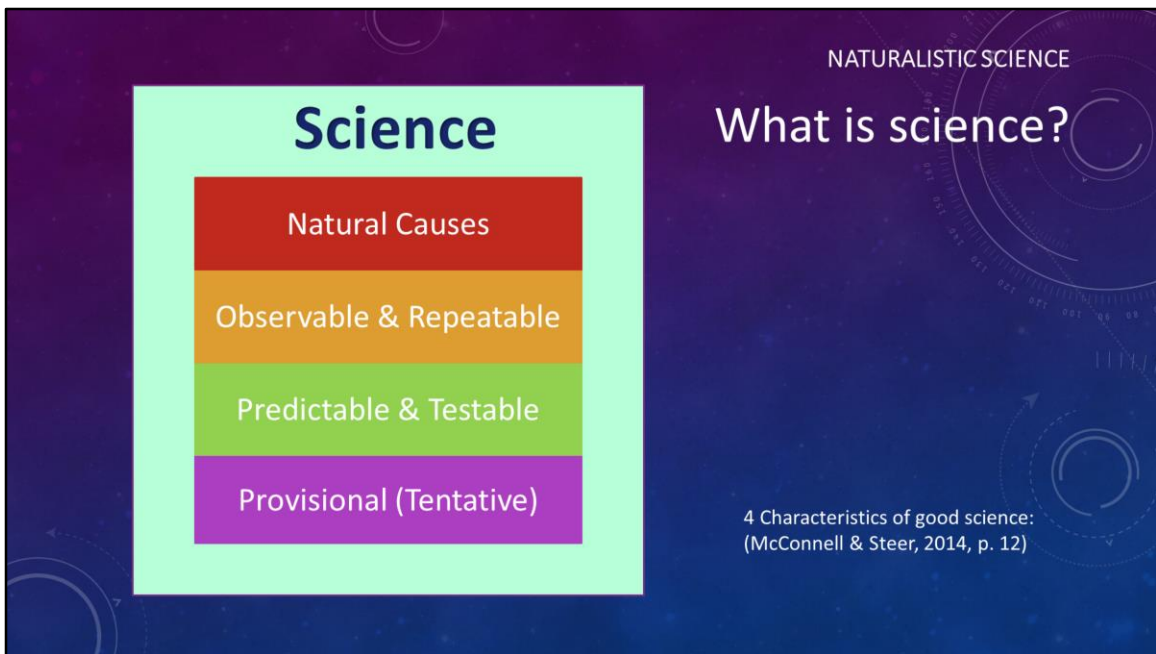
Should it be so?

... underlying assumptions?



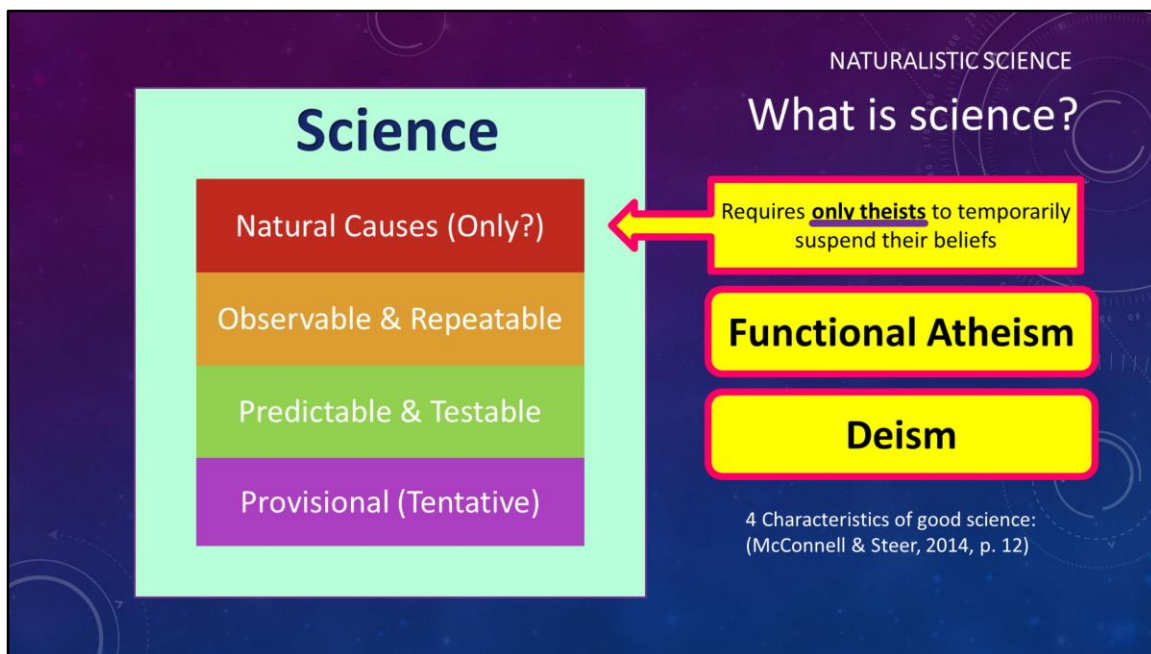
No difference! But is it actually true that “science is science is science,” the same no matter who is performing it, / unchanged by the presuppositions and worldviews of its practitioners? Do scientists treat the exploration and explanation of the universe in the same way, / checking their beliefs and prejudices at the door? / Should they do so? / Let’s examine some of the underlying assumptions of the idea.

Image from: <https://vicskeptics.wordpress.com/puzzles/june-2013-logic-maths-puzzles/>



Many introductory textbooks list characteristics or principles commonly considered to be good science. One example gives these 4:

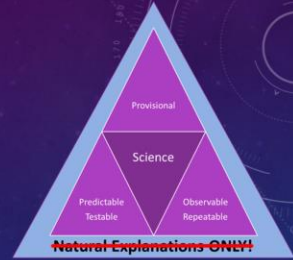
- / Scientific explanations are provisional (tentative) and can and do change.
- / Scientific explanations should be predictable and testable.
- / Scientific explanations are based on observations or experiments and are reproducible.
- / A valid scientific hypothesis offers a well-defined natural cause or mechanism to explain a natural event.



I agree completely with the first three points, / but the final one would require all scientists to act as / *functional atheists*, or perhaps deists: either denying the existence of God, or banning Him from any interference in the material world. This is nothing less than a conscious decision to discount any supernatural explanation, so science performed on this basis corresponds very closely to the worldview and presuppositions of the atheist, / only the Christian need exercise a temporary suspension of belief in looking for *only* natural causes for natural effects.

## NATURALISTIC SCIENCE

- A particular type of science
- The only possible approach?
- Contradicted by historical facts:
  - **Modern science was developed primarily by theists**
  - “The Biblical Basis of Science” (Caviness 2017)
  - <http://knowledge.e.southern.edu/jbfft/vol1/iss1/1/>



The Journal of Biblical  
Foundations of Faith and Learning

This particular type of science is now widely considered / the only possible approach, / an idea at odds with the historical facts, since modern science was developed primarily by theists working within a Biblical worldview. / For references supporting this statement, see the paper referenced here.



## COMPARE

- Science based on naturalistic (and atheistic) presuppositions
- Science developed from a Biblical worldview
  - Presuppositions
  - Objectives
  - Methodology
  - Results
  - Implications
- Historical examples
- Current trends
- Evaluate

So science may be based on a naturalistic (and atheistic) presuppositions / or on a Biblical worldview. / Let's briefly compare these options

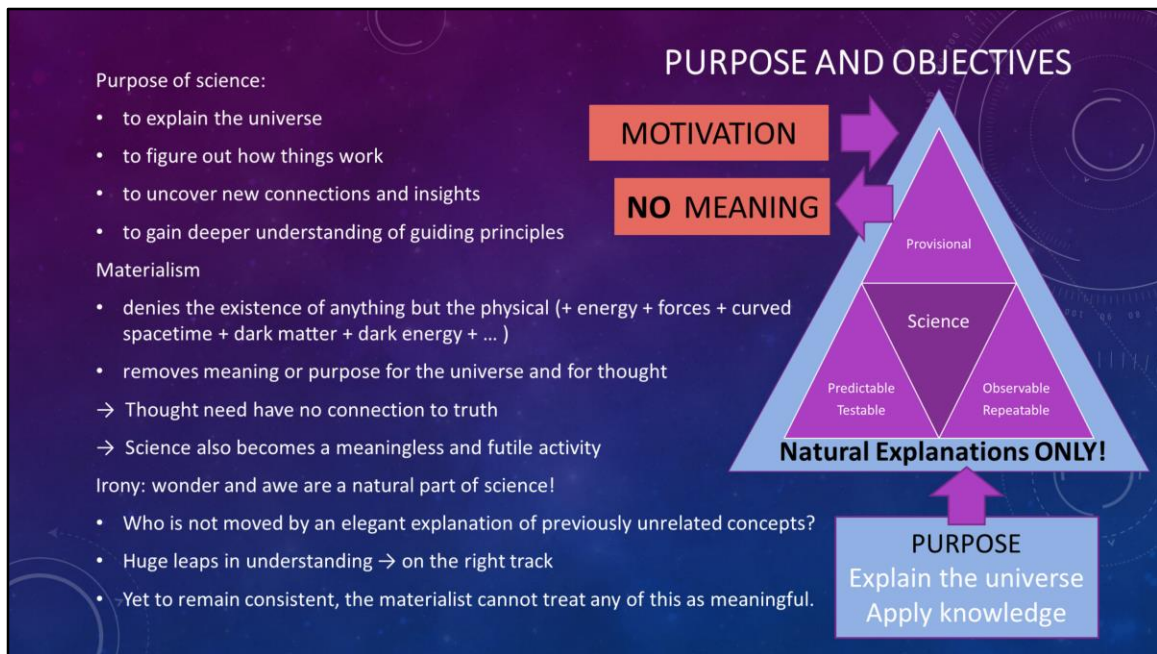
## RESULTS

- Modern civilization is a “proof by example” that science works
- Advances in technology, medicine, ...
- But these effects cannot be separately credited to naturalistic science or Biblically-based science.

### **Results of Science /**

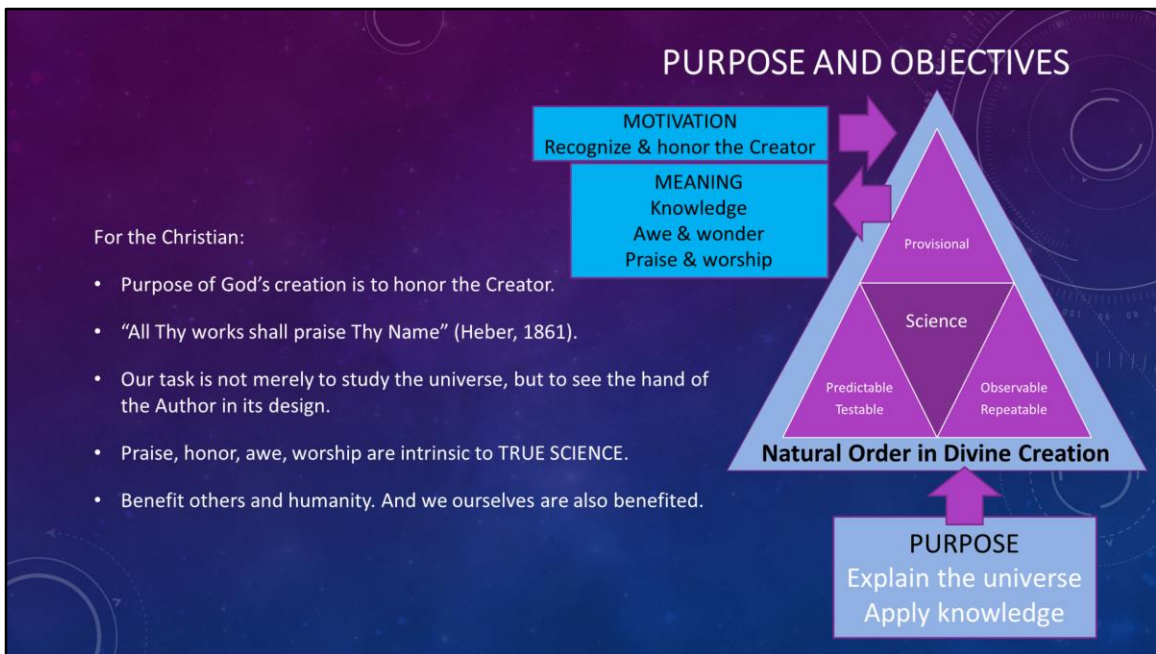
Modern civilization is in a sense a “proof by example” that science works. / The huge advances in technology, medicine, and all areas of practical knowledge can, to a great degree, be credited to science. / But these effects cannot be separately credited to naturalistic science or Biblically-based science.



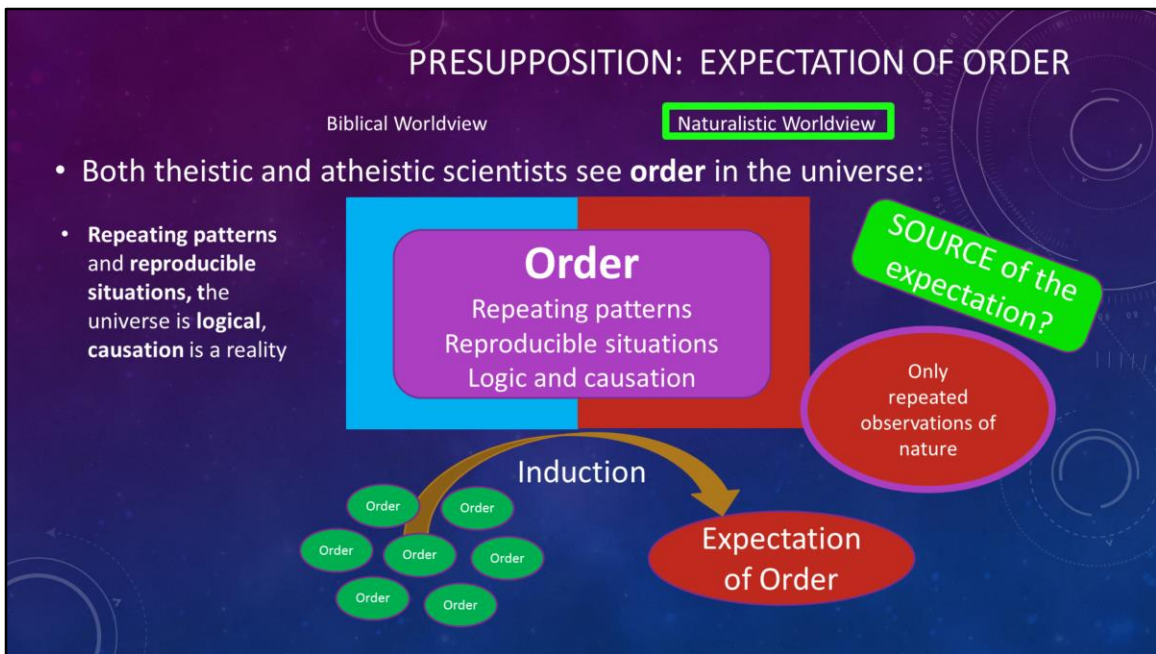


### Purpose and Objectives of Science

/ All scientists agree that the purpose of science is to explain the universe, to figure things out, and apply that knowledge. / The philosophy of materialism, however, in denying the existence of anything but the physical, also removes any possible meaning or purpose for the universe and indeed for human thought (which has no material existence). / / If the materialistic worldview is consistently applied, there is no meaning to science or anything else. / This is all the more ironic, since wonder and awe are a natural part of science. Who is not moved by the elegance of a simple explanation that ties together concepts that previously seemed unrelated? Huge leaps in our understanding have repeatedly signaled to the researcher that he or she is on the track of a deeper comprehension of the universe and its laws. / Yet to remain consistent, the materialist cannot treat any of this as meaningful.

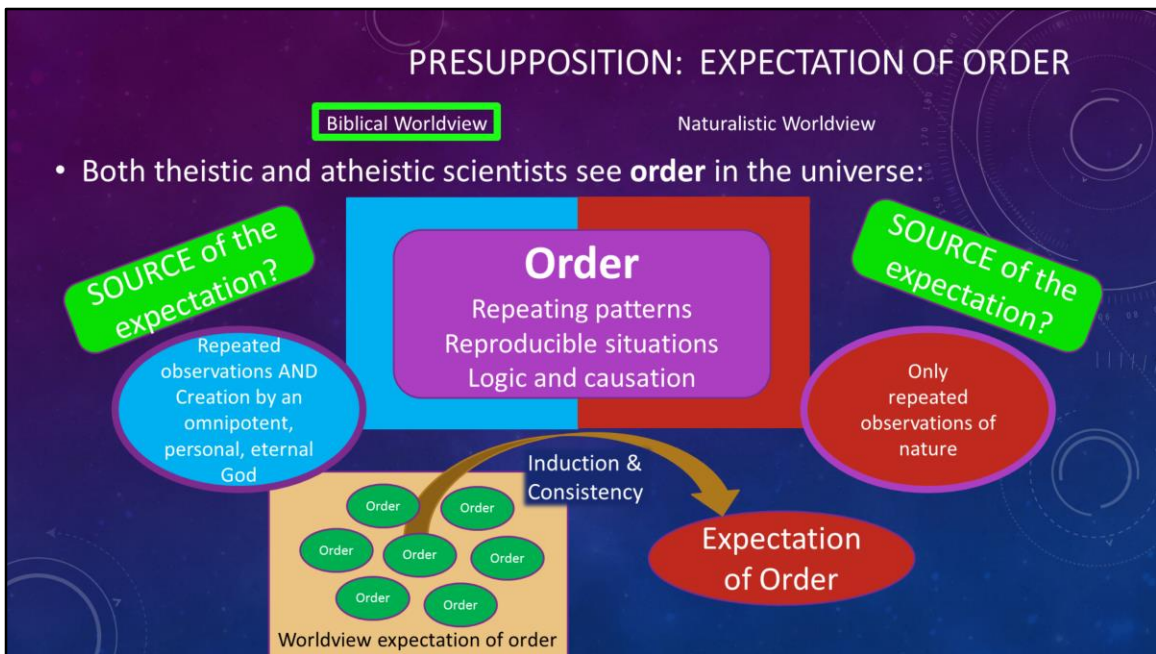


For the Christian the picture is quite different. / Scripture declares that the purpose of God's creation is to honor the Creator. / In the words of the old hymn, "All Thy works shall praise Thy Name" (Heber, 1861). / Our task is not merely to study the universe, but to see the hand of the Author in its design, / and to praise and honor Him for what we learn. Awe and wonder, praise and worship, are intrinsic to TRUE SCIENCE. As we seek to understand God's creation, we are to make use of this knowledge to honor Him, / to become better stewards of this world, and to benefit others and humanity as a whole, ... including ourselves.

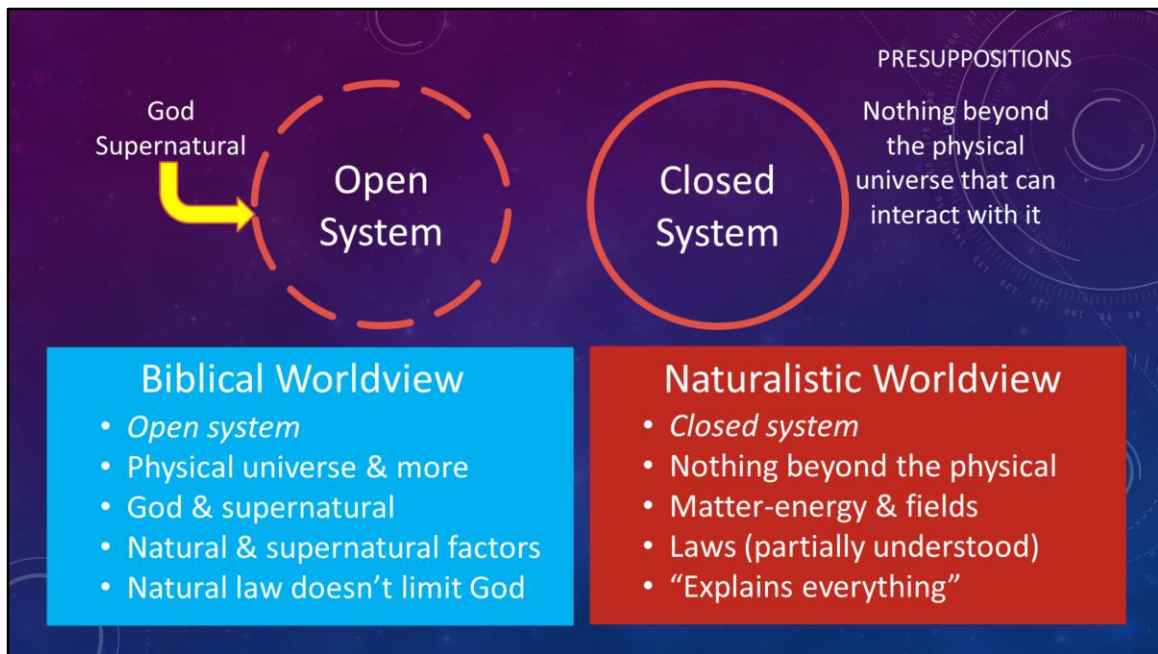


### Presuppositions (of Naturalistic and Biblically based Science) (Expectation of order)

Both theistic and atheistic scientists see order in the universe. / Repeating patterns, logical behavior. / But the atheist has no fundamental reason for this expectation, other than the inductive argument that “things have worked that way in the past, so I assume they will continue to do so in the future.”



The Christian has a reason to expect that the universe make sense, being the creation of an omnipotent, personal, eternal God. (PAUSE) [The expectation of order is supported by both individual examples seen and the Biblical worldview.]



The fundamental difference here is that of / a *closed system* versus an *open system*: the materialist asserts / that there is nothing beyond the physical universe that can interact with it, treating the universe as a closed system, whose behavior is described by a set of laws. / The theist believes in the supernatural, and sees the universe as an open system, whose origin, current state and future depend on natural and supernatural factors. / The so-called "laws of nature" are evidence of design, but they are descriptive and not proscriptive: they do not limit the Designer or prevent Him from direct interaction with His creation.



## METHODOLOGY OF SCIENCE

- Science should be done in the careful, methodical way described earlier, although individual focus may vary.
- The Biblical worldview provides what the materialist lacks: the motivation, meaning and purpose for the enterprise. Knowledge acquired is accompanied by awe and praise to the Creator, adding a dimension to the scientific enterprise missing for the atheist.
- The materialist may marvel, although probably not enough, and gains no further insights. It might be said that materialistic science is therefore incomplete, lacking not only the motivation but also the logical completing step of wonder and praise.

- Observing the real world
- Developing theories to explain it
- Comparing the predictions to results



So I must agree with my friend mentioned in the introduction: all science should be done in the careful, methodical way described earlier: making careful observations, developing reasonable explanations and comparing predictions to results. But for the theistic scientist, / the Biblical worldview provides what the materialist lacks: the motivation, meaning and purpose for the enterprise. Knowledge acquired is accompanied by awe and praise to the Creator, / adding a dimension to the scientific enterprise missing for the atheist. Materialistic science is incomplete, lacking not only the motivation but also the logical completing step of wonder and praise.

<https://www.behance.net/gallery/4859677/Vivitek-2D-3D>



## FANTASTIC HYPOTHESES TO AVOID DESIGN

- Ever more fantastic hypotheses have been proposed and ever more extravagant efforts made to avoid the evidences for design in the universe or to preserve a formal determinism.
- We now turn to a few of the more striking examples.

More and more fantastic hypotheses have been proposed and extravagant efforts made to avoid the evidences for design in the universe or to preserve a formal determinism. Let's look at a few striking examples.

## "FIRST CAUSE" ARGUMENT

- Aristotle: *Metaphysics*
- Thomas Aquinas: *Summa Theologica*
  - a never-beginning chain of previous causes, or

GOD




Resisting God as Creator is a not a new idea. We see the alternatives in the well-known “first cause” argument for the existence of God (Craig, 1980) with famous versions appearing in the writings of Aristotle and Thomas Aquinas. Today we see all current events as caused by previous events, so ... either there must have been a never-beginning chain of previous causes throughout all eternity past, or everything must ultimately depend on a first cause: God. Given these philosophical options, atheists choose the “no beginning” view because of their intellectual commitment to uniformitarianism and rejection of the supernatural.

<https://www.pinterest.com/victoria1060/images-of-daddy-gods-hands/>  
<http://www.peterkreeft.com/topics/first-cause.htm>

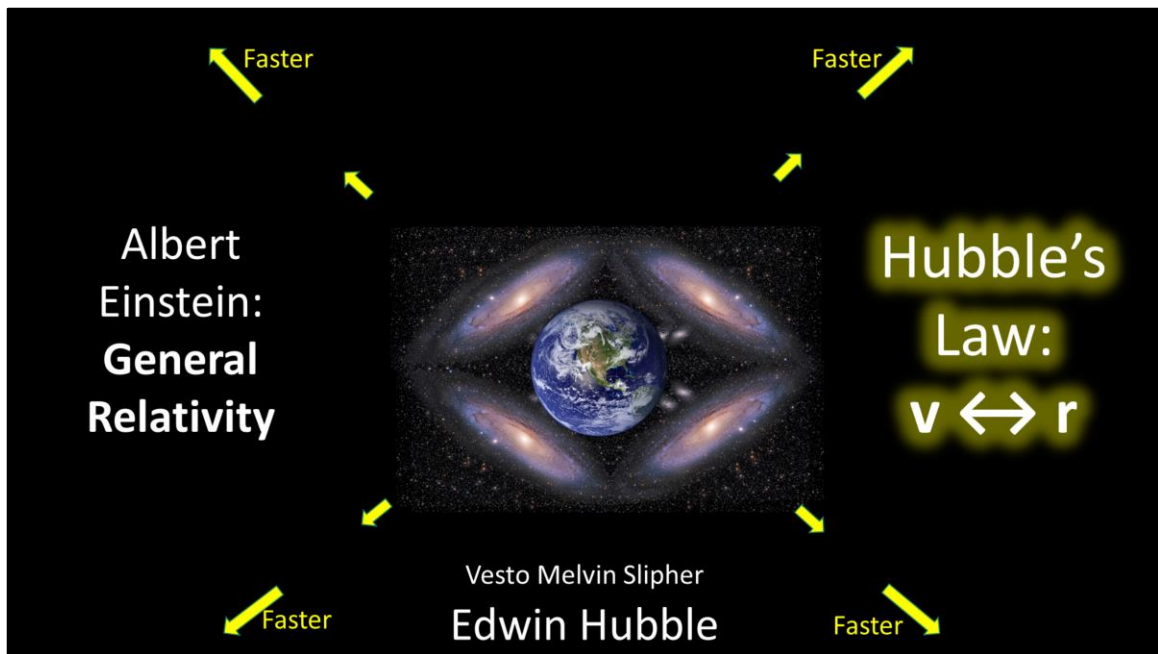
## STEADY-STATE MODEL VS. THE BIG BANG

- Idea of eternal material universe eventually abandoned
  - Story told in any introductory cosmology text, e.g., Evans (2015).
- Einstein's General Relativity → expanding universe
  - Einstein introduced the cosmological constant for stability


$$R_{\mu\nu} - \frac{1}{2}R g_{\mu\nu} + \Lambda g_{\mu\nu} = \frac{8\pi G}{c^4}T_{\mu\nu}$$

- Edwin Hubble, building on work of Vesto Slipher and others

But the idea of an eternal material universe had to be abandoned. When solutions to / Einstein's General Relativity equations that govern the behavior of the universe on the cosmic scale were shown to fit an expanding universe, Einstein himself introduced an additional term, the cosmological constant, to allow the existence of a stable universe that most physicists of the day believed in. / But he later removed the extra term after Edwin Hubble, building on the observations of Vesto Slipher and others,



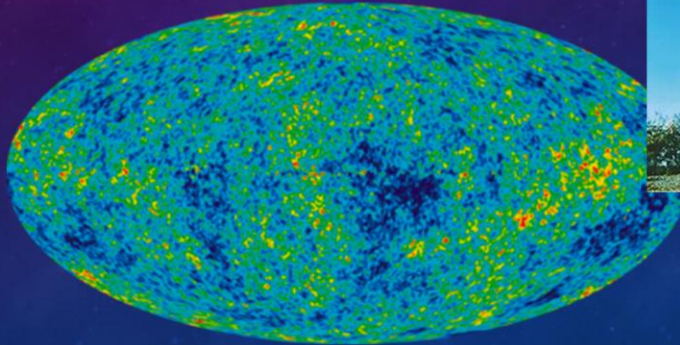
developed the relationship now called Hubble's Law to describe the behavior of all but the very nearest galaxies: all are moving away at speeds proportional to their distance from us.

## STEADY-STATE MODEL VS. THE BIG BANG

Hubble's Law: almost all galaxies moving away at speeds proportional to their distance

- Early 1950s: Robert Dicke, George Gamow, Ralph Alpher and Robert Herman speculated that early radiation stretched to microwave lengths should be detectable.
- In 1964 Arno Penzias & Robert Wilson discovered the cosmic microwave background radiation (CMBR)
  - fits the Big Bang model predictions remarkably well

Dicke,  
Gamow,  
Alpher &  
Hermann

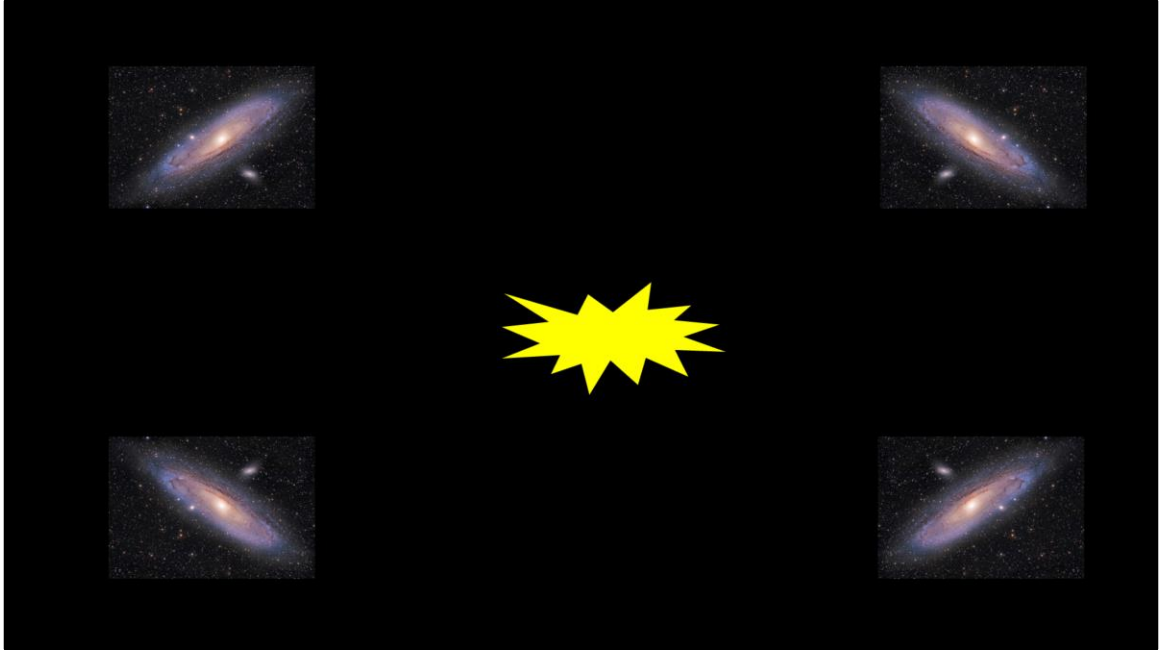


Penzias  
& Wilson

By the early 1950s physicists Robert Dicke, George Gamow, Ralph Alpher and Robert Herman had all speculated that if the universe were expanding, the remnants of early radiation stretched to microwave lengths should still be detectable today, / and in 1964 Arno Penzias and Robert Wilson made the serendipitous discovery of what is now known as the cosmic microwave background radiation, / fitting the Big Bang model predictions remarkably well.

Penzias & Wilson:

[https://en.wikipedia.org/wiki/Robert\\_Woodrow\\_Wilson#/media/File:Wilson\\_penzias\\_200.jpg](https://en.wikipedia.org/wiki/Robert_Woodrow_Wilson#/media/File:Wilson_penzias_200.jpg)



Extrapolating backward from the current expansion, simply running the movie backwards / the inference is that at some point in the distant past the entire universe would have been infinitesimally small and infinitely dense.



- Fred Hoyle and a generation of astronomers struggled to retain the “steady state model”
- The derogatory term “big bang” coined by Hoyle.



Sir Fred Hoyle

Big Bang

But Fred Hoyle and a generation of astronomers and astrophysicists struggled to retain the “steady state model”, despite the growing amount of evidence for the expanding universe and big bang model. The term “big bang” itself, coined by Hoyle, was initially derogatory and dismissive.

<http://www.naturalphilosophy.org/site/harryricker/2015/06/08/the-principle-challenging-the-intellectual-integrity-of-cosmology/>

# Big Bang

The idea that the universe had a beginning was anathema to naturalistic scientists, who rightly judged it only a small step from conceding a beginning of the universe to being forced to consider that there must have been a Creator who began it.



The idea that the universe had a beginning was / anathema to naturalistic scientists, who rightly judged it only a small step from conceding a beginning of the universe to being forced to consider / that there must have been a Creator who began it.

<http://www.goodsalt.com>

## STEADY-STATE MODEL VS. THE BIG BANG

### Save the steady state model!

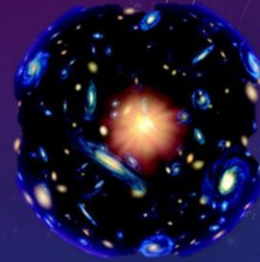
- Grasping at straws to avoid the idea the universe had a beginning.
- Spontaneous creation of  $\sim 1$  atom per cubic meter per 300,000 years (O'Hanlon, 2016).

- To choose between theories: "Occam's Razor" (Use simplest explanation)

The effort to save the steady state model included / remarkable grasping at straws like the idea that a small amount of / spontaneous creation of matter, approximately one hydrogen atom per cubic meter per 300,000 years, to maintain the average density of matter despite the expansion of space (O'Hanlon, 2016). But the only push for this unsupported notion was to avoid accepting that the universe had a beginning. / This is contrary to the principle called "Occam's Razor", using the simplest explanation that gives the correct results. Could anyone actually argue that repeated occasional spontaneous creation of matter out of nothing is really the simplest explanation?]

## STEADY-STATE MODEL VS. THE BIG BANG

- When the steady state model was finally laid to rest, another idea that gained popularity was that the current expansion of the universe might be a phase of a
- Big Bang – Big Crunch: never-ending cycle of expansions and contractions
- No reason for the shift from expansion to contraction
- no explanation for rebirth (new big bang)
- philosophical commitment to the idea of the eternal pre-existence of mass-energy and the laws of physics – anything but a Creator God
- remained popular for a half century despite complete lack of evidence
- Only recently abandoned: evidence for acceleration of expansion



If the steady state model is impossible, another idea that attracted atheists was that the expansion might be a phase of a never-ending cycle of expansions and contractions, each cycle starting with a big bang and ending with a “big crunch”. No reason for the shift to contraction could be found, no explanation for why a rebirth (new big bang) might follow, but such was the philosophical commitment to the idea of the eternal pre-existence of mass-energy and the laws of physics – anything but a Creator God – that such unsupported speculation was viewed with great favor by naturalistic scientists. They held to their materialistic worldview so firmly that this philosophical choice remained current for a half century despite a complete lack of any evidence, and it has only recently been finally abandoned when evidence for the / acceleration of the expansion of the universe came to light.

<http://www.culturemag.fr/wp-content/themes/mimbo2.2/images/BigBang350.jpg>

<http://s.hswstatic.com/gif/big-crunch-theory-big-bounce.jpg>

Steady State

Big Bang



"A stealth form of creationism"

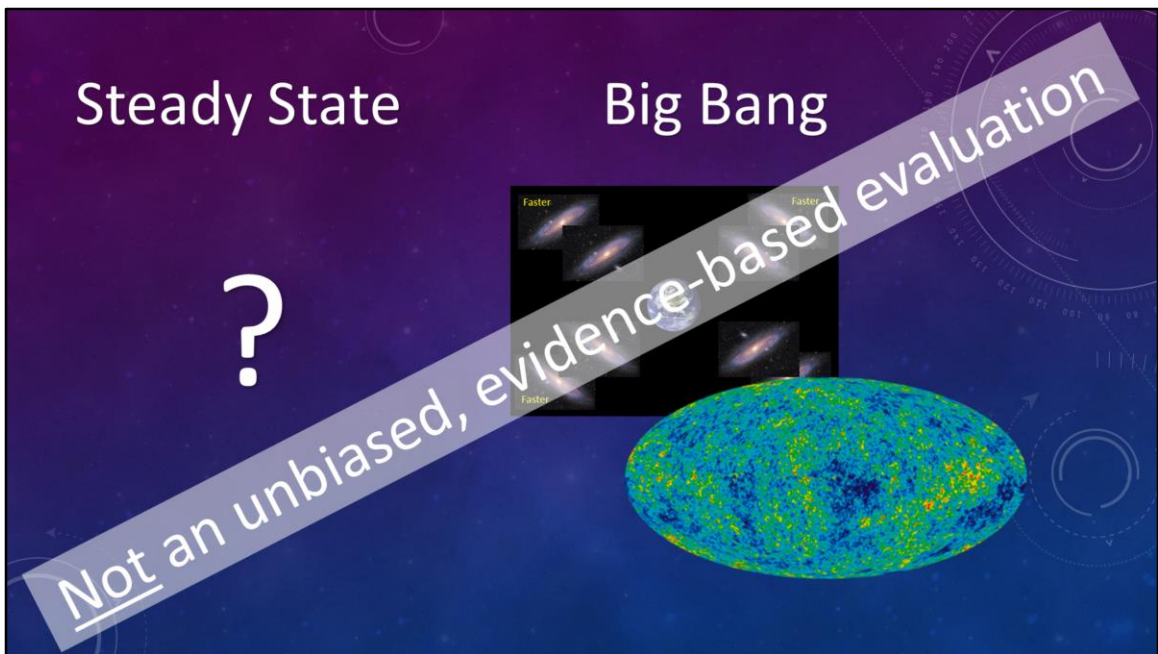
-- H. Alfvén (1992)

Why the big effort to save the steady-state model? Atheists preferred an eternal universe to / an eternal Deity who created the universe... /

Some proponents of an eternally existing material universe referred to the Big Bang model as "a stealth form of creationism" !

<http://www.goodsalt.com>

Alfvén, H. (1992). *"Cosmology: Myth or Science?"*. *IEEE Transactions on Plasma Science*. **20** (6): 590–600. [Bibcode:1992ITPS...20..590A](#). [doi:10.1109/27.199498](#).



...despite a preponderance of growing evidential support for a beginning of the physical universe. /

Clearly this was not an unbiased, evidence-based evaluation of competing scientific theories.

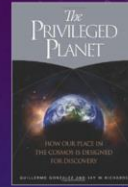


## FINE-TUNING OF THE UNIVERSE

Earth = “The Privileged Planet”

- Earth’s orbital distance from the sun
- Earth’s distance from the moon
- Earth’s mass
- Tilt of Earth’s axis
- Composition of Earth’s atmosphere
- Earth’s average temperature
- Strength of Earth’s magnetic field

2004 book:  
Guillermo  
Gonzalez &  
Jay  
Richards



Designed  
for life

### **Fine-tuning (of the Universe)**

/ The Earth is truly “The Privileged Planet”, as underlined in the recent book and the movie of that name, which explore the extremely sensitive factors that make life possible on Earth. / Small changes in any of these would make the planet inimical to life. Theists and proponents of ID (Intelligent Design) take these factors / as evidence that Earth was designed for life, and Christians see here the hand of a loving and bountiful Creator God.

## FINE-TUNING OF THE UNIVERSE

- Earth's orbital distance from the sun
- Earth's distance from the moon
- Earth's mass
- Tilt of Earth's axis
- Composition of Earth's atmosphere
- Earth's average temperature
- Strength of Earth's magnetic field

*Somewhere*  
Conditions for life  
would occur

The materialist's response is that this is merely a cosmic accident: *somewhere* among the billions of stars in each of the billions of galaxies in the universe, the conditions for life would occur as a simple matter of probabilities: some planet(s) had to hit the jackpot: Earth got lucky.

## FOUR FUNDAMENTAL FORCES

Deeper question: fine-tuned constants of nature

- Strong nuclear force
- Electromagnetic force
- Weak nuclear force
- Gravitational force

However a deeper question relates to the fine-tuning of large-scale properties of the universe and of the physical constants themselves. There are perhaps a dozen identified physical constants upon which the present state and continued existence of the entire universe depend, and even a tiny change to their values would make life impossible, and also make atoms, stars, galaxies, and even the entire universe impossible.

## OTHER CONSTANTS OF NATURE

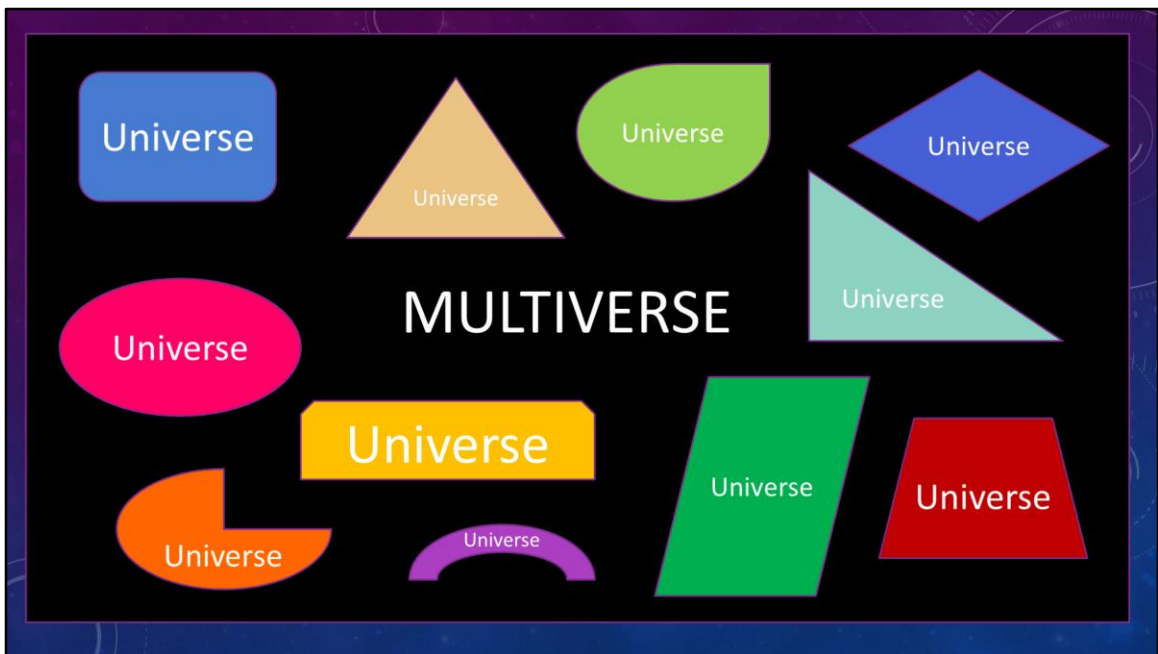
- Speed of light
- Ratio of proton and electron masses
- Ratio of electron charge to mass
- Decay rates for small nuclei and subatomic particles
- Absorption cross-sections for particle interactions

The existence of the universe also depends critically on the speed of light and other constants of nature.

## RESPONSES

- Coincidences, pure chance
- Unknown physical principles (Weinberg, 1999)
- Divine creation (Plantinga, 2007)
- Design by aliens (Gribbin, 2010, p.195)
- Quantum selection of selected past histories (Stephen Hawking) (Ball, 2010)

Responses to these challenging ideas have included attributing the coincidences to pure chance, to as yet unknown physical principles (Weinberg, 1999), Divine creation (Plantinga, 2007), design by aliens (Gribbin, 2010, p. 195), and (according to Stephen Hawking) quantum selection of only those past histories that allow for the present existence of the universe (Ball, 2010).



But the most common “explanation” highlights the incredible lengths to which the dyed-in-the-wool materialist will go to avoid the implication of design in the nature: the idea of the *multiverse*, in which our universe is just one of an uncountable number of alternative universes, each having different values for the basic physical constants. The vast majority of these cases could not result in viable universes in which galaxies could form, and habitable planets orbit stars. According to multiverse proponents, we must necessarily find ourselves in one of the universes in which life is possible, because we are here, but any fine-tuning of this particular universe is not significant.



## EVIDENCE FOR MULTIVERSE?

- It should be noted that there is **no evidence** for the multiverse hypothesis, and most physicists agree that there is **no way even in principle to test the idea**, it's only function is to avoid the logical implication of design at the fundamental level of physical law.

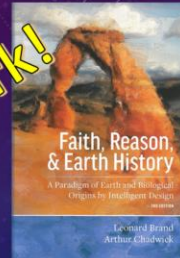
We should note that there is no evidence ... (read)

## A CLASSIC EXAMPLE

Lewontin says:

Our willingness to accept scientific claims that are **against common sense** is the key to an understanding of the real struggle between science and the supernatural.

**Homework!**



A truly classic example of the literally unimaginable lengths – in this case, uncountable universes! – to which the materialist is willing to go to avoid admitting the existence of God. This attitude is made clear / in this quote that I was pleased to read in our “homework” reading for Monday / by geneticist Richard Lewontin: Our willingness to accept scientific claims that are against common sense is the key to an understanding of the real struggle between science and the supernatural.

## A CLASSIC EXAMPLE...

We take the side of science in spite of the patent absurdity of some of its constructs, in spite of its failure to fulfill many of its extravagant promises of health and life, in spite of the tolerance of the scientific community for unsubstantiated just-so stories, because **we have a prior commitment**, a commitment **to materialism**.

(read)

## A CLASSIC EXAMPLE...

It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are **forced by our *a priori* adherence to material causes** to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated.

(read)

A CLASSIC EXAMPLE...

Moreover, that materialism is absolute, for **we cannot allow a Divine Foot in the door.**

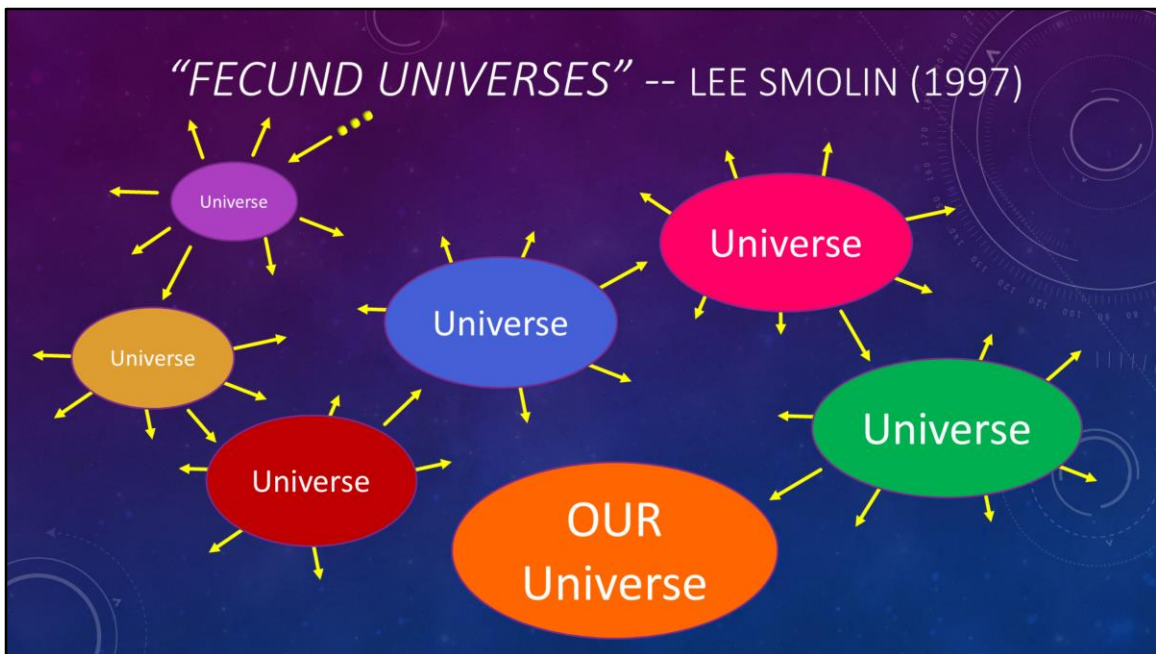
-- Richard Lewontin

(read)



An alternative to the multiverse hypothesis is the slightly different *multi-domain* hypothesis, not assuming untold numbers of / undetectable universes, only postulating an infinite number of different domains with different physical constants within our own universe, but it remains / untestable, unsupported, and unmotivated, except as a ploy to avoid admitting design. There is no indication that the laws of nature are different in different parts of the universe.





Time doesn't permit me to do more than mention another effort to avoid the need for a Creator by assuming a never-beginning causal tree of fecund universes, a theory of evolution of universes – with absolutely no evidence that other universes exist, that one universe can spawn another, or that characteristics of one universe can be inherited from another.

(moral on next page!)

# TYRANNY ALERT

- Magnitude of the fine-tuning problem
- Extreme lengths to find a naturalistic explanation
- Tyranny of the philosophy of naturalism

These are all different ways to avoid the design evident in the universe. Once again the magnitude of the fine-tuning problem / is underlined by the extreme lengths materialistic scientists will go to find a naturalistic explanation. / The tyranny of the philosophy of naturalism should be apparent to everyone.

<http://www.dearliberty.net/uncategorized/red-line-sand/>  
[https://www.google.com/search?q=tyranny&num=100&espv=2&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj9\\_LO-84rSAhUGslQKHSZCBnAQ\\_AUICigD&biw=731&bih=352#imgrc=Vy2wdUoGe-\\_XsM:](https://www.google.com/search?q=tyranny&num=100&espv=2&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj9_LO-84rSAhUGslQKHSZCBnAQ_AUICigD&biw=731&bih=352#imgrc=Vy2wdUoGe-_XsM:)  
[https://www.google.com/search?q=tyranny&num=100&espv=2&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj9LO-84rSAhVjyIQKHWO9CTgQ\\_AUICigD&biw=731&bih=352#imgrc=gfJa0fj3QR9jyM:](https://www.google.com/search?q=tyranny&num=100&espv=2&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj9LO-84rSAhVjyIQKHWO9CTgQ_AUICigD&biw=731&bih=352#imgrc=gfJa0fj3QR9jyM:)

## CLINGING TO DETERMINISM – DESPITE QUANTUM UNCERTAINTY

### A related situation...

- “Many-worlds” interpretation of quantum physics, Hugh Everett III (1957) (DeWitt & Graham, 1973).
- Classical physics models were all deterministic, future and past events predictable (Marij, 2014).
- Quantum theory set limits on this predictability.
- Many-worlds interpretation restores determinism.

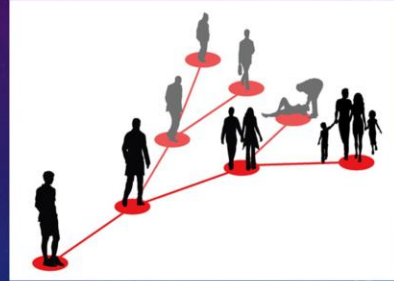
### **Clinging to Determinism**

The multiverse musings are reminiscent of another speculation motivated entirely by worldview-related prejudices: / the “many-worlds” interpretation of quantum physics, first proposed by Hugh Everett III in 1957 (DeWitt & Graham, 1973). / Classical physics models were all in principle deterministic, so all future and all past events might be predicted from the current state of the universe (Marij, 2014). / Quantum theory set limits on this predictability, changing our view of reality. / The many-worlds interpretation restores determinism,

<http://www.universetoday.com/101387/mysterious-moon-flashes-transient-lunar-phenomena-could-be-linked-to-solar-cycle/>

## CLINGING TO DETERMINISM – DESPITE QUANTUM UNCERTAINTY

- Many-worlds interpretation: restores determinism
- At the price of constantly doubling the entire universe *ad infinitum*
- Another “me” on each branch
- **No way to test** the model, **no way to interact** with parallel universes, **no explanation** for growing set of universes.
- Mathematically indistinguishable from standard quantum theory
- Fills perceived need for a deterministic paradigm
- Quantum physics interpretations: the ridiculous lengths to which materialist scientists will go in an attempt to protect their worldview
- Irony: proponents of naturalism may ridicule theists for clinging to the “god hypothesis”



... but at the price of constantly doubling and redoubling the entire universe *ad infinitum*. In this model, all possible results associated with quantum probabilities actually *do* occur, but each in a new branch of a many-branched tree, each bifurcation multiplying the entire universe. Each measurement reveals which branch I am on, but the presumption is that there is another “me” on each of the other mutually inaccessible branches whose measurements gave the other possible results allowed by quantum theory. /

This is not an attempt to avoid a beginning of the universe, but to cling to the worldview of determinism /

Of course, there is no way to test the model, no way to interact with these newly-budded parallel universes, and above all, no explanation for the exponential increase in the total amount of mass-energy in the growing set of universes. / But because the model is mathematically indistinguishable from standard quantum theory / and fulfills a perceived need to return to a deterministic paradigm, it is now considered one of the mainstream interpretations of quantum physics.

Although quantum physics is the most successful and accurate theory of matter ever developed, / the history of its interpretations shows the seemingly ridiculous lengths materialist scientists will go to in an attempt to protect a facet of their worldview they deem essential. / The irony is that proponents of naturalism often ridicule

theists for clinging to the “god hypothesis”. [Which is the simpler explanation here?!]

<https://quantummicromechanics.files.wordpress.com/2015/06/many-worlds-divergent-universes.jpg>

## IMPLICATIONS OF BIBLICALLY-BASED SCIENCE

- **An Ordered Universe and the Success of Science**

- Success of science & our ability to understand the universe is expected.
- This expectation played a role in the development of modern science (Schaeffer, 1968, p. 41).
- Nature is the creation of a single, omniscient, omnipotent Deity.
- Simple, coherent & consistent explanations can reasonably be expected.
- Humans' ability to (at least partially) understand can reasonably be expected.

- **Fine-tuning by Design**

- No need to invent fanciful, empirically unmotivated hypotheses to explain away "apparent design".
- It looks designed because it was designed.
- God chose to reveal Himself in His design and in special revelation.

- **Miracles and the Open System Hypothesis**

We now turn to the implications of the Biblical worldview as applied to doing science. This worldview has a different set of premises, but shares much of the methodology of naturalistic science. The differences, however, are fundamental and have far-reaching implications.

**/ (An Ordered Universe and the Success of Science)**

For the scientist who believes God's self-revelation in the Bible, / the success of science, including our own ability to understand the universe, is expected. This is the first and fundamental implication of Biblically-based science; / indeed, this expectation played a significant role in the development of modern science (Schaeffer, 1968, p. 41). / Nature is viewed as the creation of a single, omniscient, omnipotent Deity, and because of Divine design of the universe, / simple, coherent and consistent explanations of the universe can reasonably be expected. / Because of Divine design of humanity, it can also reasonably be expected that humans will be able to understand at least some of what we observe of His creation.

**/ (Fine-tuning by Design)**

The theist's view is that "it looks designed because it was designed", God has chosen to reveal Himself in His creation and in His special revelation, although our ability to understand is necessarily limited.

**/ Miracles (and the Open System Hypothesis)**



## IMPLICATIONS OF BIBLICALLY-BASED SCIENCE

### Miracles and the Open System Hypothesis

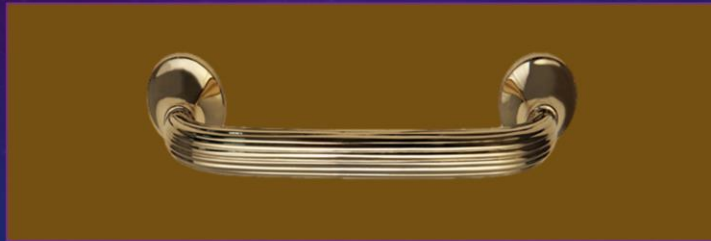
- Order, patterns of cause & effect = how nature usually behaves.
- God is not limited by natural law, may override physical law: miracles.
- No frantic effort to protect naturalism, according to the Biblical worldview the universe is an open system.



### Miracles and the Open System Hypothesis – SKIP THROUGH!

/ The theist credits the original creation of the universe to God, and recognizes the order and general patterns of cause and effect in the way nature usually behaves, / but admits that God Himself is not limited by natural law: He can work within it or may choose to overrule it. The Bible includes records of God's interactions with humans, including cases when He occasionally overrode physical law: miracles. / No need for frantic efforts to protect the sacred cow of naturalism, since according to the Biblical worldview the universe is an open system.

Christian apologist  
C.S. Lewis proposed  
this analogy:



Christian apologist C.S. Lewis explains this with an analogy: / "Suppose you put sixpence into a drawer today, / and sixpence into the same drawer tomorrow....

# Laws of Arithmetic



The laws of arithmetic can tell you what you'll find / [12 pence], with absolute certainty, provided that there's no interference.

# Laws of Arithmetic

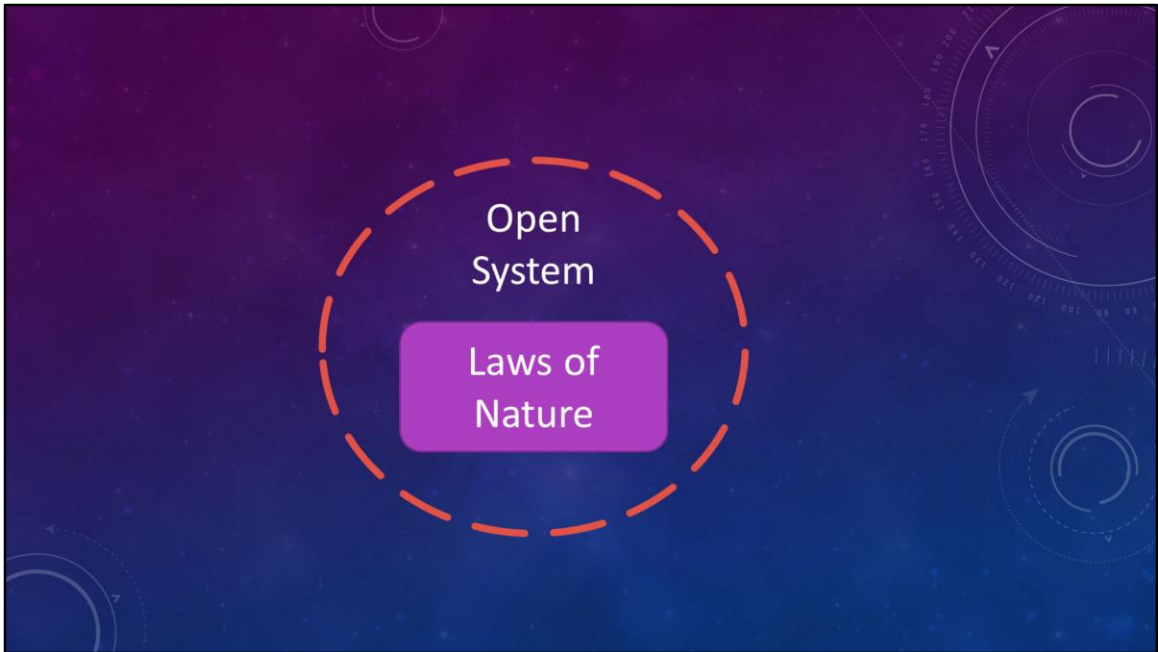


If a thief has been at the drawer of course / you'll get a different result. / But the thief won't have broken the laws of arithmetic -- only the laws of England." (1970, pp.67-68).

# Laws of Arithmetic

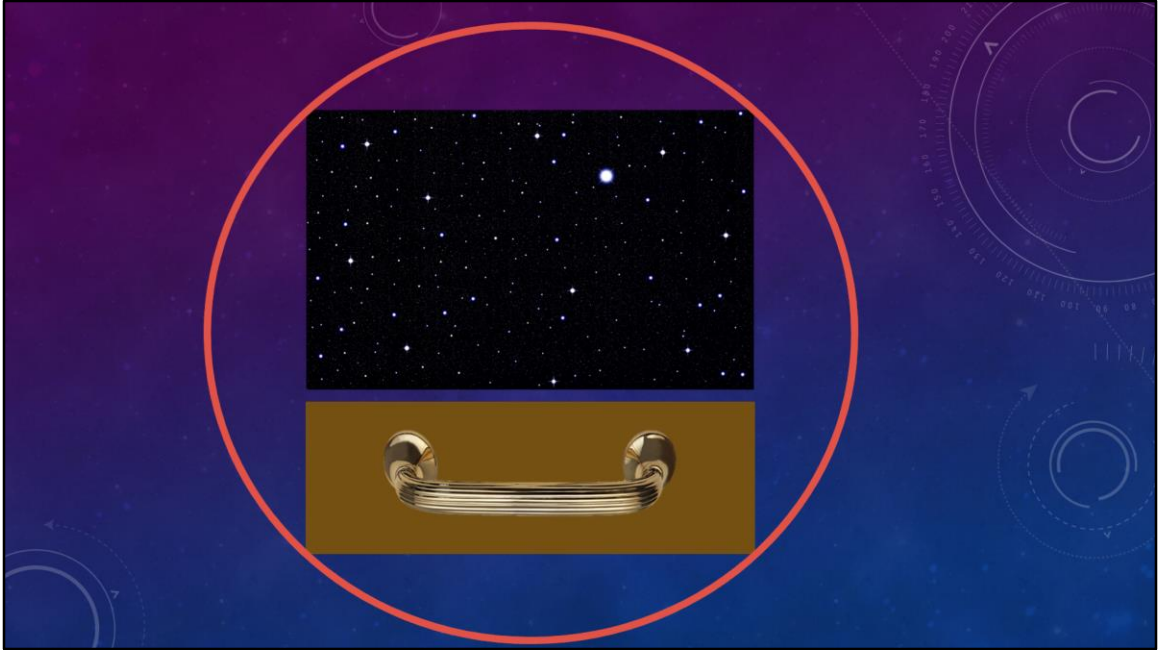


The laws of arithmetic describe how numbers function, but they cannot prevent outside intervention: / the action of thief is not prevented by the laws of arithmetic.



The laws of nature describe regular patterns visible in the universe, but they do not prevent God's intervention in the universe.





Confusion only results from the mistaken assumption that my desk drawer and the universe are / closed systems.

## IMPLICATIONS OF BIBLICALLY-BASED SCIENCE

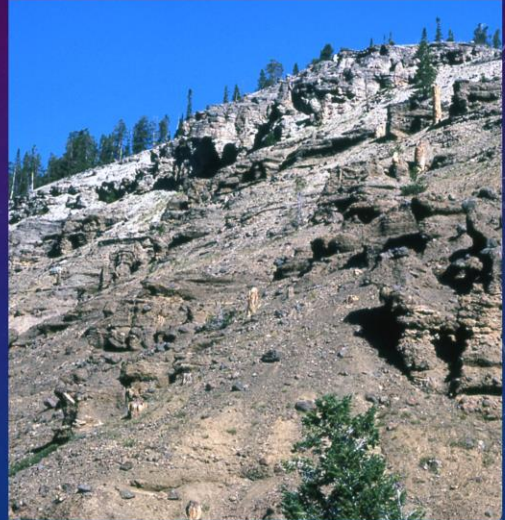
The Christian performing science based on the Biblical worldview tries to explain the patterns in nature, to carefully “reason from cause to effect” (White, *The Upward Look*, p. 53), but will keep an open mind on whether an unexplained occurrence is one data point in a larger pattern that will eventually become apparent, or will remain unexplainable within the system: a miracle.

Ellen White encourages us to carefully reason from cause to effect – but we should keep an open mind about whether an event is a miracle or part of a larger pattern of nature.

## OVERLOOKED DATA & ANSWERS

- Anti-Biblical preconceptions can lead to overlooking logical and consistent explanations or even data.
- An intellectual blind spot.
- Yellowstone layered fossil forests:
  - Long periods under today's conditions
  - Alternative short-age explanation, more careful observations => new conclusions (Chadwick & Yamamoto, 1984).
  - Further investigation upholds previously overlooked explanation (Brand, 2015).
- Examples in geology, genetics, biology, ornithology, ... (Brand, 2015).

## IMPLICATIONS



### (Overlooked Data and Unconsidered Answers)

Other presenters have mentioned examples of cases where the presuppositions of materialistic scientists prevented them from seeing a solution found by theistic scientists. ///

<https://www.nps.gov/features/yell/slidefile/geology/paleontology/Images/02362.jpg>

## THE ONION EFFECT = AN ETERNITY OF LEARNING

- We are finite.
- We may never completely understand the universe.
- “Theory of everything” or joy of the unfolding discovery?
- Creation may be infinite or may contain infinite detail.
- Not simply learning additional details!
- “Onion effect”: underneath one level of understanding may be another, deeper level, resting on completely different assumptions about the nature of reality.
- Infinite “layers” (?): consistent & significant behavior at all levels.
- *Always* more to learn, *forever* new realms to study!



### (Incomplete Knowledge, the Onion Effect and an Eternity of Learning)

But for me, one the most exciting implications of the Biblical worldview hasn't been mentioned at this conference at all: /

As finite creatures, we may never completely understand the universe, / nor successfully construct a “theory of everything”. Not for us a “final theory”, but rather the joy of the unfolding discovery. / The creation of the infinite and eternal God may itself be infinite or finite, but it may well contain infinite details that continue to challenge and interest us throughout eternity to come. /

And this is not simply learning additional details. As Christians, we are not surprised by the “onion effect”, that underneath one level of understanding there may be another, deeper level, a more accurate and more general explanation for the phenomena, resting on completely different assumptions about the nature of reality. / A universe carefully crafted by the infinite, personal, loving God can easily have infinite “layers”, with consistent and significant behavior at all levels. / Personally I believe that there *always* will be more to learn, there will *forever* be new realms to study.

<https://www.hometownseeds.com/collections/vegetable-seeds/products/onion-red-burgundy-seeds>

## THE ONION EFFECT = AN ETERNITY OF LEARNING

- Our study of the wonders of God's creation will not be limited to the paltry few decades of our earthly existence, but will quite literally never end.

“An education that is as high as heaven and as broad as the universe; an education that cannot be completed in this life, but that will be continued in the life to come; an education that secures to the successful student his passport from the preparatory school of earth to the higher grade, the school above.”

– Ellen White, *Education*, p. 19

- Healthy humility! We have only scratched the surface.


The prospect of eternity means that our study of the wonders of God's creation will not be limited to the few decades of our earthly existence, but will quite literally never end. / Ellen White describes this as “an education that is as high as heaven and as broad as the universe; an education that cannot be completed in this life, but that will be continued in the life to come; an education that secures to the successful student his passport from the preparatory school of earth to the higher grade, the school above” (White, 1952, p. 19).

/ With this perspective in mind, our current knowledge should be accompanied by a healthy dose of humility: we almost certainly have only scratched the surface of any subject we study.





For the Christian practicing science, both the miraculous and the beauty, order and pattern of the natural world / provoke a response of wonder, awe and heartfelt praise.



"I will meditate  
on your  
wonderful  
works...All your  
works praise  
you, Lord; your  
faithful people  
extol you."  
Psalm 145:5,10

This natural progression is expressed by the psalmist: "I will meditate on your wonderful works. ... All your works praise you, Lord; your faithful people extol you"

# TRUE SCIENCE

- When based on the Biblical worldview, science sheds its materialistic blinders and regains its internal consistency, meaning and purpose.

“All **TRUE SCIENCE** is but an interpretation of the handwriting of God in the material world. Science brings from her research only fresh evidences of the wisdom and power of God. Rightly understood, both the book of nature and the written word make us acquainted with God by teaching us something of the wise and beneficent laws through which he works.”

– Ellen White, *Counsels on Education*, p. 66.

(read)

[Thank you for your attention and interest!]

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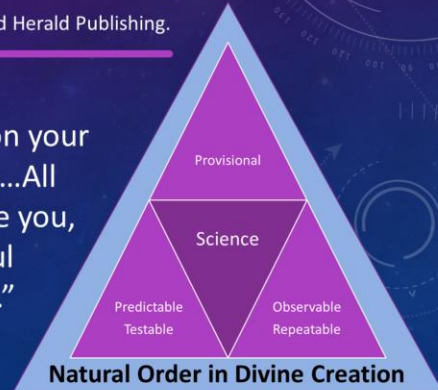


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Thanks to  
**Carol Raney** for  
help on this  
PowerPoint!