Defending Your Faith: The Case for a Creator

Lesson 4 - "The Teleological Argument" January 26, 2020

Romans 1: 19-20 (ESV) *19 For what can be known about God is plain to them, because God has shown it to them. 20 For his invisible attributes, namely, his eternal power and divine nature, have been clearly perceived, ever since the creation of the world, in the things that have been made. So they are without excuse.*

Teleological Argument - an argument for the existence of God from the evidence of order, and hence design, in nature. Because nature possesses such an amazing level of intricate detail, design, and purpose, it is only logical to assume the existence of an intelligent Creator who crafted the cosmos into existence

"Fine-Tuning" of the Universe for Life

Scientists used to think that given enough time and some luck, intelligent life forms like ourselves would eventually evolve somewhere in the universe.

However, as a result of discoveries made over the last forty years, we now know that this assumption was wrong. In fact, the opposite is true. Astronomers have been stunned by discoveries showing how complex and delicately balanced the initial conditions must have been at the moment of the universe's birth in order to permit the existence of life at all.

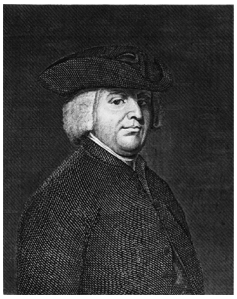
Our universe is fine-tuned in primarily two ways:

Constants of Nature – unchanging values found in the basic laws of nature that were pre-determined at the time of creation. Examples include the "*gravitational constant*" discovered by Isaac Newton and the strength of the "*weak force*" found in the nucleus of atoms.

The force of gravity between two objects is represented by: $F=Gm_1m_2/r^2$ …**G** represents the gravitational constant. There is no law or requirement that the value of this or any other of nature's constants be what they have been measured to be.

Arbitrary Physical Quantities – specific quantities of matter, energy and order that existed in the universe at the moment of creation. Examples include the initial level of "*entropy*" that existed in the universe at the moment of its creation.

What science has discovered, is that these constants and quantities must fall into an extraordinarily narrow range of values for the universe to be life permitting. This is what is meant by the fine-tuning of the universe for life.



William Paley
(July 1743 – May 1805)

English clergyman, Christian apologist and philosopher. Best known for his teleological argument for the existence of God in his work "Natural Theology". Paley used a wide variety of analogies, the most famous being his analogy between a watch and the natural world.

He argued that just as the function and complexity of a watch would imply a watch-maker, likewise the function and complexity of the universe implies that there must be a universe-Maker.

Emile Borel was a French probability theorist, who calculated what is sometimes called the ***"Threshold of Mathematical Possibility"*** in the year 1909. The number he calculated was 1 in 10^{50}. Or, 1 in 1 followed by 50 zeroes.

Emile Borel
French
Mathematician
1871-1956

Any event having a probability of occurring that is less than the probability of this number, is believed to be an event that cannot occur by chance.

Fine tuning found in the constants of nature that must exist for the universe to be life permitting include:

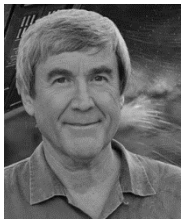
The strength of gravity - A change in the strength of the force of gravity by just 1 in 10^{100} would have prevented a life permitting universe.
The strength of the weak force - A change in the strength of the weak force by just 1 in 10^{100} would have prevented a life permitting universe.
The value of the cosmological constant - A change in the value of the "cosmological constant", by as little as 1 in 10^{120} would have rendered the universe life prohibiting.

Stephen Hawking
Theoretical Physicist
1942 - 2018

These represent only a small portion of the constants of nature which must be finely tuned for the universe to permit the existence of life.

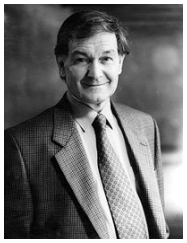
Fine tuning in the arbitrary physical quantities of nature that had to exist at the birth of the universe for the universe to be life permitting include:

Initial expansion rate of the universe – Stephen Hawking calculated that if the rate of expansion of the universe one second after the big bang had been slower by even one in a hundred thousand million million, the universe would have re-collapsed before it ever reached its present size.
A Universe Suitable for Star Formation – Paul Davies (notable cosmologist and professor at Arizona State University), has calculated that the odds against the universe's initial conditions' being suitable for star formation (without which planets could not exist), is one followed by at least a thousand billion billion zeros.



Paul Davies
Cosmologist Physicist
Born Apr 1946

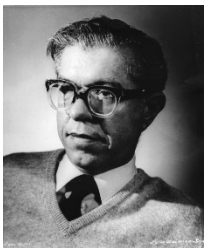
Level of Entropy in the Universe at the Moment of Creation - Roger Penrose, one of the world's leading scientists and professor of physics at Oxford University has calculated the odds of the universe being born in such a low state of entropy to be 1 in 10 to the 10^{th} power to the 123^{rd} power! This is a number that is so inconceivably large that it is impossible for the human mind to comprehend.



Roger Penrose
Mathematical
Physicist
Born Aug 1931

Like the constants of nature, these examples represent only a small subset of all the arbitrary physical quantities that had to exist at the moment of creation for the universe to permit the existence of life.

Fred Hoyle (*noted astronomer and science author*), was quoted in his book "The Universe: Past and Present" as saying, *"A common sense interpretation of the facts suggests that a super-intellect has monkeyed with physics, as well as with chemistry and biology, and that there are no blind forces worth speaking about in nature. The numbers one calculates from the facts seem to me so overwhelming as to put this conclusion almost beyond question."*



Fred Hoyle - Astronomer and Author (1915-2001)

Objections against design used by secularists include:

If the constants and quantities found in nature had been different, maybe different life forms would have evolved. - When scientists say a universe is life permitting, they're not talking about just present forms of life. By "life" scientists mean the property of organisms to take in food, extract energy from it, grow, adapt to their environment and to reproduce. Anything that can fulfill those functions counts as life.

In order for life like this to exist, the constants and quantities of nature have to be unbelievably fine-tuned. If the values found in nature had been even slightly different, not even matter or chemistry could exist, much less planets where life might evolve.

"ODDS OF 1 IN 10^{60} IS LIKE FIRING A BULLET TOWARD THE OTHER SIDE OF THE OBSERVABLE UNIVERSE 20 BILLION LIGHT YEARS AWAY AND NAILING A ONE INCH TARGET!"– *WILLIAM LANE CRAIG, "ON GUARD: DEFENDING YOUR FAITH WITH REASON AND PRECISION", DAAVID C. COOK; NEW EDITION (MARCH 1, 2010)*

"Anthropic Principle", we can observe only those values of the fundamental constants and quantities that are compatible with our existence.

The fact that we can observe only a life-permitting universe does nothing to eliminate the need of explaining why a life-permitting universe exists. It's true that if the universe were not life-permitting we would not be able to observe it. But, should still be surprised that we are here observing a life permitting universe, in light of the enormous improbability that one exist at all.

The existence of a "Multi-Verse" would explain why our life permitting universe exists in spite of the incredible odds against its occurrence.

No material evidence exists to support any of these exotic theories. In fact, in order to accept these wildly speculative theories, one must possess what secularists accuse believers in God of possessing…blind faith!

Questions for discussion:

1. William Paley in his classical work, "Natural Theology", used the example of a finely crafted pocket watch to conclude what? Is it reasonable to extend his argument to the universe as a whole? Why or why not?

2. Over the past 40 years or so, science has discovered the universe must possess an unbelievable level of fine tuning for life to exist. Were you previously aware that such a fine tuning of nature existed? Is it reasonable to claim that such fine tuning in nature points to the existence of a Creator who crafted the universe with a purpose? If so, how?
3. Sometimes individuals might claim that if the laws of nature were different, then different life forms might have evolved. Why is this statement not true?
4. Scientists have come to understand that our universe is life-permitting in spite of unbelievable odds against it. What theory does secular science commonly offer to explain away the fact that a life-permitting universe exists in spite of the enormous odds against it? What does the proposal of such an exotic theory say about the nature of the secular scientific community?
5. In our first lesson, we established that any belief system requires an element of faith. Based upon the material of our last two lessons, do you believe it takes more faith to be an atheist or a believer in God? Why?