

# Defending Your Faith: The Case for a Creator Part IV

## “The Teleological Argument”

**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

**William Paley (July 1743 - May 1805)** was an English clergyman, Christian apologist and philosopher. He is best known for his teleological argument for the existence of God in his work “*Natural Theology*”. In making his teleological argument, 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.

### “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.

**There are primarily two ways our universe is finely tuned:**

- **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.
- **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.

- **Emile Borel (1871 – 1956)** - A French probability theorist, calculated what is sometimes called the **“Threshold of Mathematical Possibility”** in the year 1909. This number is 1 in  $10^{50}$ . Or, 1 in 1 followed by 50 zeroes.

Any event that has a probability of occurring that is less than this number, is effectively impossible to have occurred by chance.

#### **Examples of Fine Tuning in the Constants of Nature Include:**

- **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.
- **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.
- **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.

These examples are only a small subset of all the constants of nature that must possess precisely fine-tuned values for the universe to permit the existence of life.

#### **Examples of Arbitrary Physical Quantities that had to exist for the universe to be life permitting include:**

- **Initial Expansion Rate of the Universe** – Stephen Hawking has calculated that if the rate of expansion of the universe one second after the big bang had been smaller by even one part 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.  
**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  $10^{123}$  power to the  $123^{\text{rd}}$  power! This is a number that is so inconceivably large that it is impossible for the human mind to comprehend.

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.

✚ **“Odds of 1 in 10<sup>60</sup> 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”*, David C. Cook; New Edition (March 1, 2010). - \*All of the examples listed above are incredibly less likely to occur than this.

**Fred Hoyle (noted astronomer and science author 1915 - 2001)** 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.”*

### **Objections Against “Design” Used by Secularists Include:**

1. **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.

2. **Sometimes people will appeal to the example of a lottery in order to justify the chance alternative. In a lottery where all the tickets are sold, it’s fantastically improbable that any one particular person would win, yet somebody has to win!**

We’re not interested in why we have this particular life permitting universe. Rather we’re puzzled by why, against overwhelming odds, we received a life-permitting universe **rather than** a life-prohibiting universe. That question is not addressed by saying, “Well, some universe had to come into existence.”

3. **“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.

4. **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. Sometimes you will hear the argument that in a lottery, someone has to win. And, just because someone does win, does not mean the lottery was rigged in their favor. If this is true, why is it reasonable for us to claim that a life-permitting universe can be attributed to something more than blind luck?
5. 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?
6. 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?