

Defining the purpose and source of the universe without considering religion

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Abstract

Does our universe have a purpose and was it created by an external source? This paper, without considering religion, argues that it has a purpose and was designed by an intelligent designer.

The first argument for a “Life” purpose is based on two special features of life, intelligence and consciousness. The second argument for purpose is an observation, the universe acts like it has a purpose.

The rationale for selecting the source of creation as an “Intelligent Designer” over the “Just Exists” option also has multiple arguments, such as: specifying universal rules and laws of physics; rationalizing the universe’s clever, ingenious design; explaining fine-tuning of particle masses and force strengths; and, defining Big Bang assumptions.

The task is to understand what assumptions are currently most rational considering: the importance of life/consciousness; arguments for source of creation; and, processes for producing energy, such as, the speculative multiverse theories.

Additionally, the analysis provides perspective on other source options for our universe: a Life Principle; a self-comprehending causal loop; and an advanced civilization.

Keywords: purpose of universe, source of universe, religion, intelligent designer, laws of nature, universal rules, law of physics, multiverse, advanced civilization.

Introduction

“What is the purpose and source of the universe?” This is the most fundamental and intriguing question about the universe’s existence. The answer to this question has been debated by philosophers and theologians for thousands of years based on religious doctrine and limited scientific knowledge.

This article, in a hopefully unbiased process, addresses this question. The reasoning presented is based on science and logic; however, the conclusion - a universe created by an “Intelligent Designer” with a “Life” purpose is more logical than a universe that “Just Exists” with “No Purpose” - complements religious doctrine.

The arguments are based on the following: observing how the universe acts which implies a building plan; defining the importance of life/consciousness; identifying the option with the fewest assumptions required for establishing the laws of nature (universal rules and laws of physics); acknowledging the ingenious design; and considering the fine-tuning of force strengths and particle masses.

Also, for comprehensiveness, three alternative sources are documented: Life principle; observer-participancy; and, an advanced civilization.

Purpose and source combined

The matrix combining purpose and source (Figure 1), shows two purposes and two sources. The purposes are None/No Purpose and a Life purpose. The possible sources are Just Exists and Intelligent Designer.

The shaded boxes combine a purpose and source in a result box. Each result is described by three characteristics: number of universes, a theory for initial energy creation, and the possibility of life. In both scenarios, No Purpose and Just Exists, the result might represent a multiverse with many universes or it might represent a unique universe (the consequence of specific laws of nature and fundamental constants with values fine-tuned for our universe). Also, in both scenarios for our universe, initial energy theories must produce fine-tuning of masses and force values equivalent to observed values. These theories include: Inflation (inflaton field), String Theory (colliding branes), and Quantum Gravity (recycle/ bounce). (Johnson, 2018) The possibility of life is *incidental* when the source Just Exists but *assured* if the source is an Intelligent Designer.

Purpose

Figure 2 documents the assumptions required for each purpose: a fluke; life is special based on intelligence and consciousness; and, the universe acts as if it has a purpose or building plan.

No purpose

From a scientific perspective, some might argue that “purpose” is a human concept and therefore irrelevant when discussing the universe (or multiverse). Thus, the universe has No purpose and its source correspondingly Just Exists with life incidental, a fluke occurrence.

Intelligence and Consciousness

Two significant aspect of human life are intelligence and consciousness, defining either is non-trivial. “I don’t really know what the word *consciousness* means; it is fuzzy around the edges. It seems to be a conglomerate of all things, such as emotions, intelligence, and sense of beauty, as well as sensations” (Gould, 2018, 209). But whatever the definition, consciousness and intelligence are a reflection of something special. Think of how we can observe, explore, theorize, and explain the universe from our insignificant place on an unassuming remote planet.

How the universe acts

Some scientists propose that life, intelligence, and consciousness are part of the universe’s agenda - its building plan was set up to guarantee life. As Roy Gould states, “We think of purpose or intent as being an emergent property reserved for living things. We can’t imagine that a hydrogen atom might have a purpose of any kind. And that is right, a cupful of hydrogen does not have a purpose of any kind. But a universe filled with hydrogen, is a different matter. Animated by its own forces, it has forward motion. It has a story. And it behaves *as though* it has a purpose. ... Even though that seems to make no sense” (Gould, 2018, 243); and continuing, “Who would have guessed that

a motley crew of atoms could assemble themselves into the molecules of life?” (Gould, 2018, 162).

	Source	
Purpose	Just Exists	Intelligent Designer
(1) None/No Purpose	Unique Universe or Multiverse Initial energy Life incidental	
(2) Life		Unique Universe or Multiverse Initial energy Life assured

Figure 7.1. Combining purpose and source of universe

	Assumptions for Purpose	
Purpose	None	Life
	Fluke	Life is special a. Intelligence b. Consciousness Acts as if has a purpose a. Building plan b. Atoms/Stars/DNA

Figure 7.2. Assumptions for Purpose

This story is told by the Big Bang process; in summary, behavior demonstrates purpose by: the way nuclear forces form atoms; the way stars are created and live for billions of years; the way atoms contain electrons which absorb and disperse photons from discrete energy states; the way electrons bind elements together to form molecules; the way electron transfers energy to support living organisms; the way DNA reproduces cells; and the way intelligence and consciousness evolved. An amazing, almost magical, sequence of events which suggests that the universe may be set-up to guarantee the emergence of intelligent life. It should be noted that a key principle in this process is the second law of thermodynamics – actions strive toward a state of lower energy.

Source

Cause and effect reasoning is not valid when explaining the “ultimate” source because something unexplained has to be accepted as a given. Thus, supporting evidence must be based on other reasoning. The logic for arguing an ultimate source is based on: the number of assumptions required for defining laws of nature; the ingenious design of the laws of nature; and, the initial energy fine-tuning which produces a sustainable Big Bang process. The assumptions along with the sequence of the process for our two options, from the ultimate source to the Big Bang, is shown in Figure 3.

Assumptions, one or many?

Theories providing the energy source for the Big Bang *assume* the laws of nature - a set of universal rules and the laws of physics. Universal rules include: mathematical logic; three (obvious) space dimensions and one time dimension; multiple forces and fields; and fundamental particle specifications. The laws of physics are: electromagnetism, thermodynamics, special relativity, general relativity, and quantum mechanics. Thus, empty “space” is something; it contains universal rules and laws of physics. (Johnson, 2016)

If a designer is proposed as the source, one might ask: is the designer supernatural, does entity or entities reside in an external or platonic reality, what is its nature, is it unique, and how does it relate to time? But these questions are *not* relevant or possible to answer; the more critical question: is the assumption supporting a designer more logical than the assumptions supporting a Just Exists source?

So let’s analyze the two options (Figure 3). If the source of creation Just Exists (the opinion of many scientists), as in the inflation theory for example, then the Big Bang mysteriously arises with universal rules and the laws of physics inherently in their specific form. Because of the various universal rules and laws of physics, this option requires *multiple* assumptions (or as with the multiverse, an infinite number of universes). But, if an Intelligent Designer is assumed as the ultimate source, then, only one assumption is required. Universal rules and laws of physics would be subsequently created by the Intelligent Designer. The single assumption for an Intelligent Designer is less extravagant than the many assumptions required for a Just Exists source; using Occam’s razor logic (the alternative with the fewest assumptions should be selected), the Intelligent Designer is favored.

Ingenious Design

A quote from Roy Gould, eloquently describe the ingenious design for our universe. “For example, you and I and the world’s greatest engineers could not accomplish very much using only the simplest element, hydrogen. Yet the universe has fashioned this unassuming material into the great engines of creation – the stars – which manufacture chemical elements and spew them across the sky” (Gould, 2018, 12). Thus, the question is: does this design exist as one of an infinite number of universes as proposed by a multiverse or was it created by an Intelligent Designer?

Initial energy source for fine-tuning and a sustainable process

Now addressing the initial energy source which is embodied by the Big Bang and identical in both sources producing our universe. Energy and matter transform according to universal rules (math, dimensions, particles, forces/fields) and laws of physics. However, particles need mass and forces need strengths. Both are established by initial energy theories. The values for our universe must be close to their current values to create a sustainable process, this is fine-tuning. For initial energy, theories might contain an energy field as the inflaton field (inflation theory) or exist as a perpetual energy source (bounce/ cyclic theory).

Sequence	Assumptions for Source	
1, Ultimate Source	Just Exists	Intelligent Designer
↓		
2. Laws of Nature a. Number of laws b. Design Ingenuity	Many assumption required By-product of multiverse	One assumption required Result of Intelligent Designer
↓		
3. Initial energy a. Particle mass and force strength fine-tuning	Multiverse or coincidence	Designed
↓		
4. Big Bang a. One or many	Combined assumptions for Laws of Nature and Initial energy	One assumption required

Figure 7.3. Assumptions for Source

All theories must produce identical particle masses and identical force strengths as observed in our Big Bang. Other values would produce mostly chaotic results and nothing sustainable. (Johnson, 2016) The possibility that unique values for fine-tuning Just Exists appears improbable. The possibility the values represent one alternative out of an infinite number of universes (multiverse) also has skeptics. The alternative, design by an Intelligent Designer, is more rational (Figure 3).

Big Bang

Since the Big Bang process combines the laws of nature with the energy source, a “Just Exits” source requires assumptions from both as previously described. This produces a sustaining process as discussed in the Purpose Section, How the universe acts. The simpler argument, is to accept an Intelligent Designer as source (Figure 3).

Alternative proposals with a Life purpose

Decades ago, two noted scientist, John Wheeler and Paul Davies, were convinced that life was so special it must somehow be integrated into the existence of the universe. In other words, an inseparable link exists between the universe and consciousness. The Life Principle proposed by Paul Davies and the participation universe proposed by John Wheeler both require “life” as a purpose. The source, containing universal rules and laws of physics, Just Exits as shown in Figure 7.4. (Although it is possible the source was created by an Intelligent Designer, this is not assumed by the authors.)

	Source/Classification			
	Just Exits			Intelligent Designer
Purpose	A. Fluke	B. Life Principle	C. Participatory	D. Designed
(1) None	Unique Universe or Multiverse Initial energy Life incidental			
(2) Life		Unique Universe or Multiverse Initial energy Life assured	Unique Universe or Multiverse Initial energy Life assured	Unique Universe or Multiverse Initial energy Life assured

Figure 7.4 Alternative source possibilities with Life purpose

Quoting Paul Davies from his book, *The Mind of God*, “We who are children of the universe – animated star dust – can nevertheless reflect on the nature of that universe, even to the extent of glimpsing the rules on which it runs. What is Man that we might be party to such privilege? I cannot believe that our existence in this universe is a mere quirk of fate, an incident of history, an incidental blip in the great cosmic drama. Our involvement is too intimate. ... The existence of mind in some organism on some planet is surely a fact of fundamental significance. Through conscious beings the universe has generated self-awareness. This can be no trivial detail, no minor byproduct of mindless, purposeless forces. We are truly meant to be here (Davies, 1992, 232). Thus, Davies proposed the Life Principle, a universe with an inherent fundamental principle (or law) requiring life and intelligence. The origin of the principle, a goal orientated evolution, is mysterious, not based on scientific proof and must be accepted as an assumption. (Davies, 2008, 266)

Paul Davies also describes John Wheeler’s conception of the universe, “Physics gives rise to observer-participancy; observer-participancy gives rise to information; information gives rise to physics. ... Wheeler’s interpretation of quantum mechanics is that it is only through acts of

observation that the physical reality of the world becomes actualized; yet the same physical world generates the observers that are responsible for concretizing its existence” (Davies, 1992, 224).

A more recent proposal, not shown in Figure 7.3, but similar to the participatory self-explaining concept is Biocentrism advocated by Robert Lanza and Bob Berman. For example, quoting three of the seven laws of Biocentrism which reflect Wheeler’s participating universe: the behavior of all particles are linked to the presence of an observer; without consciousness, matter dwells in a state of probability; and, Life creates the universe. They conclude that, “Theories that do not account for life or consciousness will ultimately lead to dead ends, and this includes string theory” (Lanza and Berman, 2009, 162).

Experiment and advanced civilization

To assure a comprehensive analysis, figure 7.4 requires one additional purpose, Experiment, and one additional source, Advanced Civilization (Figure 7.5). An Intelligent Designer or an Advanced Civilization might experiment in creating a universe. With this purpose, life would be incidental. The designer might test different universal rules, different laws of nature, and different energy sources. Obviously, there exist an infinite number of combinations, most of which might produce a chaotic conglomeration of mass and energy. To design a sustaining form of matter and energy, one that does not self-destruct, requires a clever designer (reference Chapter four).

An Advanced Civilization is a secondary source. The ultimate source remains Just Exists or Intelligent Designer. However, a secondary source must be recognized, especially with the popularity of virtual reality. An advanced civilization, using sophisticated technology, might design and build a real universe or program a computer simulation similar to the movie, *The Matrix*. Purpose could be either life or experiment. In the two results, one or many universes are possible and life would be incidental (Figure 7.5). Of course this assumes an Advanced Civilization exists and is motivated to create a universe(s). The energy source is also secondary, derived from a previous source.

	Source/Classification				
	Just Exists			Intelligent Designer	Advanced Civilization
Purpose	A. Fluke	B. Life Principle	C. Participatory	D. Designed	E. Designed
(1) None	Unique Universe or Multiverse Initial energy Life incidental				
(2) Life		Unique Universe or Multiverse Initial energy Life assured	Unique Universe or Multiverse Initial energy Life assured	Unique Universe or Multiverse Initial energy Life assured	Unique Universe or Multiverse Real or simulated Life assured
(3) Experiment				Unique Universe or Multiverse Initial energy Life incidental	Unique Universe or Multiverse Real or simulated Life incidental

Figure 7.5. Advanced Civilization and Experiment

Conclusion

Because science is sophisticated and the universe is accommodating, discoveries in astronomy and particle physics have been astonishing in recent years; but, answering questions about the purpose and source of the universe must focus on logical arguments.

The first argument for a Life purpose is based on two special features of life, intelligence and consciousness. The second argument is an observation, the universe acts like its purpose is to produce life, appearing to follow a building plan. These assumptions support a Life purpose for the universe.

The logic for selecting the ultimate source of creation as an Intelligent Designer over the Just Exists option is based on a rational analysis of assumptions. First, when specifying Laws of Nature (universal rules and laws of physics), the Intelligent Designer option has only one assumption, rather than many (Occam's razor). Second, an ingenious design which Just Exists is an improbable occurrence. Also, an infinite number of universes, an implication of multiverse theories, is an improbable assumption. A more logical assumption would be an Intelligent Designer.

The assumptions for initial energy source provides a similar choice among three options: coincidence; a multiverse; and, intelligent design. Our universe has fine-tuned values for particle masses and force strengths which infer design over a coincidence or multiverse.

Alternative Just Exists options have been proposed by Paul Davies and John Wheeler but have not enjoyed wide-spread popularity. Also, however speculative the possibility, our universe resulting from an experiment must be considered.

This paper started by asking, "What is the purpose and source of the universe?" Based on analyzing topics (specifically, life is something special, the universe appears to follow a building plan, the inherent existence of laws of nature, the ingenious design demonstrated, the initial energy/fine-tuning, and the Big Bang sustaining process), a persuasive case was documented for Life as the purpose and an Intelligent Designer as the source. This conclusion complements religious doctrine regarding creation.

Final Comment

This article excluded religious doctrine as rational for considering a purpose and source. The reader however, might propose that the Intelligent Designer is the God of creation.

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