Universal Existence

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Overview

This paper is a general discussion following on from mySomething From Nothing paper regarding existence of the universe and associated physics It should be read before reading this paper. The big question is:

How is it that this universe and we exist?

I argue here that based on the physical evidence and trivial logic, there is only one rational way to explain our existence. It's an accident waiting to happen.

I argue that all attempts to find a unique physical law description are doomed to failure, because there isn't one. We just happen to live in one of the many randomly generated universes where the laws of physics, and the physics that those laws result in, allow us to exist. The circular nature of the laws of the physics of mass-energy being absolutely, inherently, dependent on the mass-energy that those laws describe, means that there are potentially an infinite number of possible laws of mass-energy and corresponding instances of mass-energy. My view is that many are simply in denial of this. Some maintain a god equivalent belief that the laws of physics can exit without without any actual physics existing. This is clearly an irrational belief. Period.

Introduction

It really is pretty much trivially obvious as to the only way it can be for this specific universe to exist, neglecting gods. It's looking at the big picture and not worrying about the mess of stunningly complicated theory where it is impossible to see the forest because the trees are in the way.

Many PhDs Physicists, including the famous ones on YouTube, have simply lost the plot. They do this by claiming that it is the others that have lost the plot. These physicists have been chipping away with an endless faith, that the general solution is just at the end of the rainbow. I say faith, because there is essentially, no evidence that any theory has actually every been final.

Some claim that some theories are unscientific, allow for almost anything and arenfalsifiable, but completely ignore the idea that they might actually be physically true. For example, you cannot convince me that you are conscious, but if I kick any dude in the balls it proves to them that they are conscious. Kurt Gödel tells us that some things are true, but not provable.

For me, Occam's Razor is very good tool for getting through the chuff. If it walks like a duck,

quacks like a duck, then it probably is a duck.

The Problem

So, what is the most reasonable explanation as to how we are here?

The big problem is that the universe, our consciousness and physical construction is so very complicated, that an explanation is clearly required.

The immediate 1st level explanation is that of Darwinian Evolution. As currently applied, it is pretty much indisputably correct. However, this is a complete red herring with regards to our existence. It says, not a lot. The problem is that it depends on physics such as oxygen, carbon, electrons and so forth. How is it that the laws of physics are so constructed that objects like can DNA exist in the first place, let alone how they change by evolution?

It is trivially obvious that the probability of everything conspiring to produce this specific universe, and us, is ultra, extremely low. Many scientists are indeed in complete denial of this, just as the theists claim. How is this problem solved?

First, for reasons given in my other KALAM paper, lets dispense with a god. The issue being, is that it just moves the problem to how is a god explained. It solves absolutely nothing, and more to the point, has diddly squat *physical evidence* in support of it.

Probability

The only way of increasing your chances of winning the lottery, is to buy more tickets.

Axiom 4

A.4 It is too improbable that this specific universe should exist, if this universe is the only possible universe to exist,

There is the well known "fine tuning" problem, that postulates that small changes in the value of physical constants (electron charge, plank's constant etc) would make this universe impossible, but this is also a red herring in that, the issue is not just the specific values of the constants, but why are there not more or less basic particles to the electron, neutron, proton and photon, saulphrons and tetrons as well. Why is there charge and gravity? Way not another particle in an atom other than electrons, protons and neutrons? It the whole kitterkaboodle. What determines the laws of physics and the objects of physics in such a way that this universe and we exist?

Axiom 5

A.5 For this specific universe to exist, there must be multiple ways of generating laws of physics and physical objects for many universes.

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Its that simple. There are no other options if axiom 4 is correct.

Assuming that there is a way that enough different laws of physics are generated, then the Anthropic principle explains how we are here. We just happen to be in one of the many that we could not have been in.

Multiple Universes

There are several conceptual ways to generate options to the laws of physics, in the bigger scheme of things, it is immaterial as which one is correct. All that matters, is that there is a mechanism to generate different laws of physics and associated physics. The two most obvious ones are:

- 1 This universe is one of many, unconnected universes.
- 2 This universe undergoes a process that allows for its laws to be changed.

Physicists have formulated theories for both of theseGuth's inflationary theory gives large numbers of disconnected big bangs. There are also some continuous cyclic big crunches and expansions theories. It would seem that the acceleration of the expansion of the universe is a bit of damper on the latter option though.

One very active research program is String Theory. String Theory explicitly generates something like 10^{500} possible sets of laws of physics, and has often been criticized for this alleged problem. The arguments here though, show that is exactly what is required for this universe to exist.

Global Laws Of Physics

My <u>Something From Nothing</u> paper gives a rational as to how different laws of physics must be generated. The summary key points are the justification of two new axioms of physics, and a corollary to those axioms:

- A.1 Empty space can and does randomly generate physical objects.
- A.2 The laws of physics are caused by the existence of physical objects.
- C.3 Empty space represents a true physical singularity of random physical objects generation.

Some potential laws of physics can be concluded to be mandatory for a viable universe. Many of these can be derived based on symmetry considerations, such as momentum, energy etc. Some might require only simple logic.

For example, if conservation of energy did not apply in a particular universe, then that universe would either heat up to infinite temperature or cool to zero everywhere, given sufficient time. Conservation of momentum means that all things don't eventually grind to a halt, or all things

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don't jaunt off to infiniteTeletubbie land.

Interestingly, conservation of energy would only have to apply on average to eliminate heat gain/loss, which is the case for Quantum Mechanics, where energy can disappear and reappear if the time is short enough.

Realistically, it is very conceivable that a completely different collection of fundamental particles with different charges, spin, mass and so forth could result in a viable universe.

More on this is here, Anthropic

Summary

It has been argued that the existence of this specific universe requires the existence of other universes, with different laws of physics. It is also argued that the random nature of the laws of physics and associated physics, that there is no analytical solution as to how this particular universe is constructed. It is concluded, that physicists would be just as well going down the pub then trying to square the circle.

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