

The Universe / Cosmology

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Thoughts on The Universe, Perpetual Motion and Perpetual Motion Mechanisms, Infinity/Infinite Amount and its Infinite Imbalance, and God.

For this consideration, let's assume that all universes are included in the term "**Universe**", in the sense that all possible universes such as Oscillating, Pulsating, Parallel, Bubble, Multiverse, etcetera, would all be part of the greater overall Universe. And that all of these possible mini universes (denoted with a lower case "u") would likely have some or many of the same kind of fundamental particles, elements and physics of our 'spacetime universe' since they all would be subsets of the same greater overall infinite Universe (denoted with a capital "U").

If the Universe is truly infinite in any direction, dimension, and/or amount, meaning that the Universe has existed forever in one form or another (matter/antimatter, energy, etcetera), and the Universe remains in motion, as it presently does, then the Universe must be a perpetual motion mechanism, otherwise, the Universe's motion would have permanently ceased long ago.

The probability/fact that the Universe has existed forever in one form or another, that is, prior to, during, and after the "Big Bang", and the fact that the Universe remains in motion, as it presently does, suggests/proves that the Universe's infinite motion fits the model of a perpetual motion mechanism.

The perpetual motion of the Universe may be as simple as an '**Infinite Imbalance**' of the Universe's '**Infinite Amount**' of things such as matter (including dark matter)/antimatter, energy (including dark energy), space (including all areas outside our 'spacetime universe'), time, gravity, electromagnetism, the nuclear forces, etcetera, that are never able to permanently equalize/stabilize in the overall Universe. '**Infinity**' and its **inextricably combined 'Infinite Amount'** allows the Universe to remain forever in motion due to the fact there is always more or less (infinitely more/larger, infinitely less/smaller, and/or infinitely other dimensional) to upset the balance depending on the direction/dimension/amount the equilibrium is attempting to achieve. Hence, the sought permanent 'dead-stop-absolute-zero' equilibrium, which would act to permanently end the Universe's perpetual motion, will remain forever out of reach due to the '**Infinite Imbalance**' of the Universe's '**Infinite Amount**' of things, and thus, the Universe will remain forever in motion.

For example, Cyclical universes:

"The Oscillating Universe Theory is a cosmological model that combines both the Big Bang and the Big Crunch as part of a cyclical event. That is, if this theory holds true, then the universe in which we live in exists between a Big Bang and a Big Crunch." - Universe Today. The "Big Bang" part of these theories may be explained by the quantum mechanics prediction of an originally created energy fluctuation/**imbalance**/spark (e.g. a matter/antimatter imbalance) that creates new universes such as our own mini 'spacetime universe'. Or may also be explained by other theories in which blackholes start these universes by reaching a critical point of **imbalance** (for example; by turning into White Holes via The Loop Quantum Gravity Theory) and explode/expand thereby creating new mini universes which in turn, either wholly or partly, contract back into new blackholes and repeat the cycle due to the 'Infinite Imbalance' of the 'Infinity/Infinite Amount' of the Universe. And, if the "Big Crunch" or "Contraction" does not occur and our 'spacetime universe' continues to expand infinitely, then that too would support my '**Theory of Perpetual Motion and**

Infinity/Infinite Amount in that our mini 'spacetime universe' would simply be reabsorbed back into the greater overall Universe, and, since energy cannot be created or destroyed (except by fluctuations and imbalances predicted by Quantum Mechanics, in the already existing Universe), then that reabsorbed energy/matter/fundamental particles/motion/etcetera will forever exist in some form or another (probably dark energy/dark matter) in the greater overall infinite Universe. Other theories of the creation and existence of the Universe like Parallel/String (which, like The Loop Quantum Gravity Theory, tries to unify General Relativity with Quantum Mechanics), Oscillating, Pulsating, Multiverse, Bubble, etcetera, would also support my '**Theory of Perpetual Motion and Infinity/Infinite Amount**', in that their existences would be born from and exist within the 'Perpetual Motion' and 'Infinity/Infinite Amount' of the greater overall Universe.

'**Infinity/Infinite Amount**' is the magic variable that makes perpetual motion and perpetual motion mechanisms possible. If there is 'Infinity/Infinite Amount' then there is the possibility/probability of perpetual motion and perpetual motion mechanisms such as "The Universe".

PME (Perpetual Motion Energy) = ∞ Infinity in any direction/dimension and/or any Infinite Amount/supply applied to MC^2

PME = ∞ applied to MC^2

I theorize that perpetual motion mechanisms can exist and are possible simply by the fact that infinity exists in the Universe and that we are physically here in spacetime, we are part of spacetime in the overall infinite Universe, in the form of motional matter, converting while still conserving the Universe's overall infinite energy. If there is an infinite amount of something, then that something cannot be exhausted. And, if energy cannot be created or destroyed (except by fluctuations and imbalances predicted by Quantum Mechanics, in the already existing Universe), then does not that suggest/prove the existence of infinity and perpetual motion. Quantum Mechanics predicts that energy, for however momentarily, can be spontaneously created and destroyed (in the already existing Universe), and that this energy fluctuation/imbalance/spark may have given birth to our mini 'spacetime universe'. This scenario would further support my '**Theory of Perpetual Motion and Infinity/Infinite Amount**' in that it reveals that matter/antimatter/energy/motion existed prior to the creation of our mini 'spacetime universe'. And this begs the question "Where did *that* matter/antimatter / energy/motion come from?"... ad infinitum.

I also theorize that the infinite Universe acts like a fertile field where the seeds of mini universes are born and grow... and when/if these mini universes expire, their elements are simply reabsorbed back into the greater overall infinite Universe (probably as dark energy/dark matter) to be endlessly recycled over and over again. Thus, the Universe's 'Infinity/Infinite Amount' along with its 'Infinite Imbalance' allows this perfect perpetual motion mechanism to continue forever.

The simple proof of this theory is: **The Infinite Universe exists and it remains in motion.**

I am proposing this theory in the intersection of science and philosophy.

Some theories of mathematics and physics try to "fence in" and create boundaries around the infinite Universe, but then the question remains, what is on the other side (outside) of those calculated boundaries. There always has to be something on the other side of whatever boundary is set (ad infinitum), that is the literal definition of a boundary... "a dividing line between areas". So, in other words, no matter how far you go in any direction/dimension/amount, you can always go farther, there can be universes within universes within universes along side other universes along side other universes (ad infinitum), that is what infinity means, there are no ultimate boundaries.

Bottom line:

If the Universe is truly infinite then there must be the possibility/probability of a perpetual motion mechanism because, in fact, the Universe remains in motion, constantly and infinitely converting and conserving energy to endlessly fuel/operate this perfect perpetual motion mechanism which we call "The Universe".

Once it has been established that the Universe is a natural perpetual motion mechanism, then the goal of recreating such a perpetual motion mechanism is theoretically possible.

There may be a free lunch after all. The laws of thermodynamics may have to be reexamined.

For example:

“In the center of a black hole is a gravitational singularity, a one-dimensional point which contains a huge mass in an infinitely small space, where density and gravity become infinite and space-time curves infinitely, and **where the laws of physics as we know them cease to operate.**” - The Physics of the Universe

“There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy.” - Shakespeare

Let me rephrase that...

We are receiving the free lunch right now. We are living in and are a part of a perpetual motion mechanism called “The Universe”.

The mere deductive reasoning fact that we exist in the overall infinite Universe and we/matter/energy/etcetera remain in motion, proves the probability/fact that there is perpetual motion created by the perfect perpetual motion mechanism called “The Universe”.

Simply stated, if infinity exists in any direction/dimension and/or in any amount/supply of matter/antimatter, energy, space, time, gravity, etcetera, in the overall Universe, and the Universe remains in motion, as it presently does, then the Universe must be a perpetual motion mechanism, otherwise, the Universe’s motion would have permanently ceased long ago.

More concisely stated, if the Universe is infinite in any direction/dimension/amount, and the Universe remains in motion, as it presently does, then the Universe must be a perpetual motion mechanism.

Most simply stated, if the Universe is infinite, and it remains in motion, as it presently does, then the Universe must be a perpetual motion mechanism.

Thoughts on the Universe.

As mentioned above, there is the distinct possibility that our ‘spacetime universe’ is just one version of a mini universe explained by any number of these theories, one of which is the quantum mechanics theory/prediction of an originally ‘created energy imbalance/spark’. Another theory is that a black hole has reached a critical point of imbalance and has exploded all of its contents (either inwardly, outwardly or other dimensionally) giving birth to our ‘known universe’ whose beginning has been christened with the name “The Big Bang”. Think about descriptions; A Black Hole’s description is an area of immense gravity that attracts and condenses things into an infinitesimally small point, a **gravitational singularity**. “The Big Bang’s” description is exactly the same only in reverse, which gave birth to our presently ‘known universe of spacetime’ from an exploding/expanding infinitesimally small point. This may be a process that is repeated over and over again to create new mini universes ad infinitum within the greater realm of the overall infinite Universe.

Parenthetically, there should be life everywhere in the Universe, it should be discovered to be a quite normal phenomenon.

Does God exist?

It all depends on how one defines God.

If God is defined as “The Universe”, then yes, God exists. Thus, it would logically follow that we are Creations/Children of “The Universe”/God.

If God is defined as the creator and ruler of the Universe who is an omniscient and all powerful deity with superhuman characteristics and morality, then this version of God exists purely in the minds of those who created and believe in this image of God. Also, if infinity is truly infinite, then who/what created God, and who/what created who/what created God, ad infinitum.

Additional thoughts;

‘Infinity/Infinite Amount’ is the magic variable! If the Universe is truly infinite, then an ‘Infinite Amount’ of things must fill this infinity. ‘Infinity’ and ‘Infinite Amount’ are inseparably and inextricably combined, like Space and Time “Spacetime”... Infinity and Infinite Amount “Infinity/Infinite Amount”. ‘Infinity’ answers the questions of beginning and end. With infinity there is no beginning and there is no end. So in the beginning there actually is no beginning, and in the end there actually is no end. This answers the questions of creation and destruction of the Universe. ‘Infinite Amount’ answers the question of exhaustion of the Universe, that is, if there is an infinite amount of something then that something cannot be exhausted and will forever remain an infinite amount of that something regardless of whatever form that infinite something takes.

“What was the beginning/initiating spark that started the Universe?”

“How will the Universe end?”

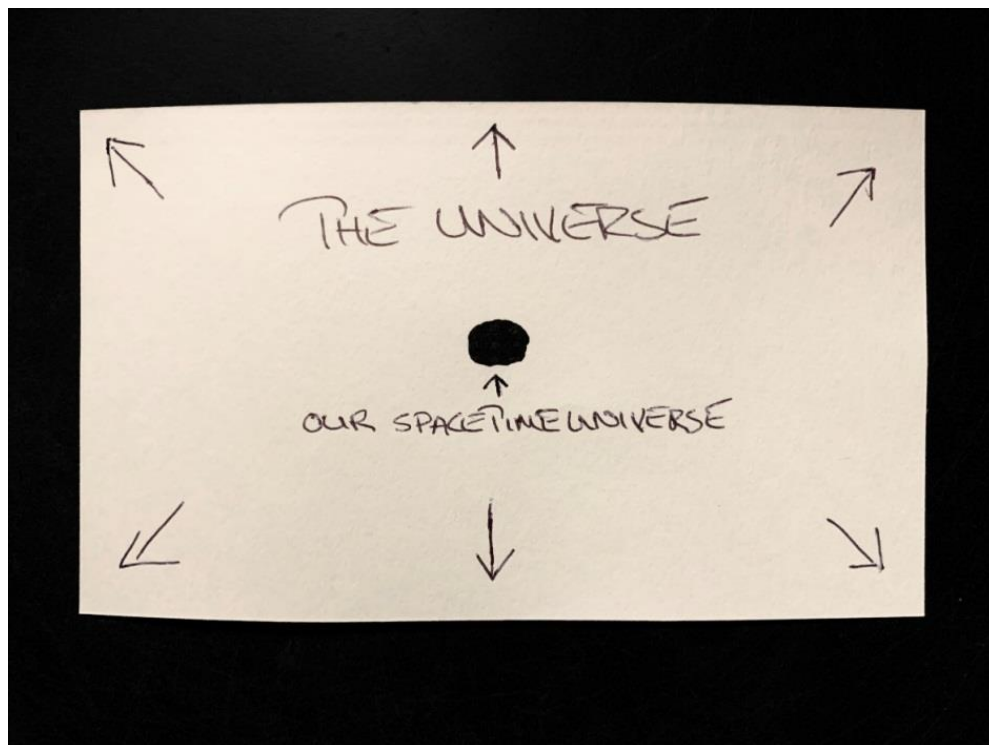
“In the beginning God created the heaven and the earth.”

Let us assume that these questions and this biblical statement refer to the creation of our own mini ‘spacetime universe’, “The Big Bang”. Every beginning is from another beginning’s end... ad infinitum. Infinity means that there is no beginning and no end to the overall infinite Universe.

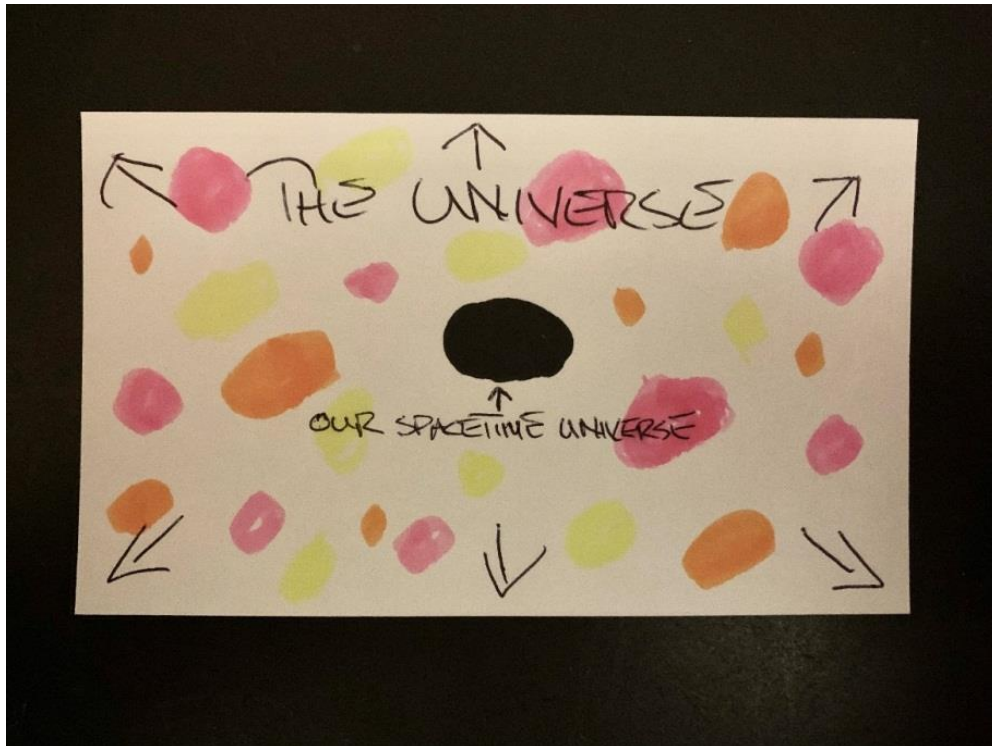
‘Infinity/Infinite Amount’ and its ‘Infinite Imbalance’ allows the Universe to be the Perfect Perpetual Motion Mechanism.

So what is our mini ‘spacetime universe’ expanding into?

The greater overall Infinite Universe.



Along with all of the other mini universes that may be out there.



Our original space explorers looked beyond our earthly realm to realize the wonders of our 'spacetime universe', now we can expand that vision beyond our own mini 'spacetime universe' to realize the awesome new wonders of the greater overall infinite universe!

So sit back and enjoy the ride!

The Universe is an amazing thing, the fact that the Universe can produce a lifeform that can ponder its own existence, in that Universe, is infinitely amazing!

John Paulos

These are my original thoughts. It is not my intention to overlap anyone else's thoughts.

Thank you, John Paulos