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Spacetimes are the Building Blocks of Nature

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The unifulverse is a cosmological hypothesis, according to which, there are transformant universes, such that any universe could transform into another universe from among all of the infinite parallel and different universes. From the perspective of the unifulverse hypothesis, all of the infinite parallel universes potentially exist in our actual universe, which enables our universe to transform into any different parallel universe. This distinguishes the unifulverse hypothesis from the multiverse approach, according to which, the infinite parallel universes actually exist in different dimensions from our actual universe. The unifulverse hypothesis says that our universe is potentially full of other universes. This is why it is called the unifulverse. And the unifulverse hypothesis implies that spacetimes are the building blocks of reality, leading to the spacetime theory of the universe.

The Transformantalist Law and Spacetimes

The transformantalist law of nature is the following:$u = \Sigma Ps \div E$, such that u is uncertainty, ΣPs is the sum of all of the probabilities, and E is energy. Since the existence of more probabilities implies more uncertainty, while energy is needed to actualize the probabilities, it follows that $u = \Sigma Ps \div E$. Now, if the law $u = \Sigma Ps \div E$ (i.e. if the law that uncertainty is equal to the sum of the probabilities divided by energy) is true, then more energy entails less uncertainty, and less energy entails more uncertainty. Therefore, the law $u = \Sigma Ps \div E$ predicts that the basic building blocks of nature have the least possible energy, otherwise uncertainty wouldn't have been maximized, and hence, the universe wouldn't have been governed by uncertainty, such as the uncertainty principle of Heisenberg. Since the law $u = \Sigma Ps \div E$ predicts that the basic building blocks of nature have the least possible energy, while the least possible energy one can imagine resides in spacetimes because spacetimes are mathematical constructs, it follows that the law $u = \Sigma Ps \div E$ predicts that the building blocks of our universe are spacetimes. If this prediction were false, then the law $u = \Sigma Ps \div E$ would be false, leading to the conclusion that this law is scientific because it could be tested.

The Spacetime Theory and Different Geometries

Different geometries lead to the construction of different universes [1]. The spacetime theory is successful in explaining why diverse universes emerge from distinct geometries. The spacetime theory of the universe says that the universe is constructed out of geometrical spacetimes. And the spacetime theory is implied by the law $u = \Sigma Ps \div E$ because this law predicts that the building blocks of our universe possess the least energy, while spacetimes have the least possible energy. From this perspective, according to the spacetime theory of the universe, the universe is reduced to geometry because it is built out of geometrical spacetimes. And this explains why different geometries lead to different universes, which amounts to the fact that diverse universes emerge from distinct geometries.

Spacetimes and the Transformant Universes

If spacetimes are the building blocks of our universe, and given that different spacetimes amount to different possible universes (because different universes emerge by changing the geometries of spacetime), then the different possible and parallel universes actually or potentially reside in our actual universe. This leads to the conclusion that our universe could transform into other different universes, and hence, there are transformant universes, such as our universe. In fact, our universe is constantly transforming into other universes, namely a universe in which particles are particles, and a different universe in which particles are waves instead of particles. And this is why particles behave as particles and waves at the same time, although particles are the opposite of waves.

The Spacetime Theory and the Subatomic Particles

The fundamental subatomic particles are scientifically described as featureless and unobservable [2]. But spacetime is featureless and unobservable. Therefore, it is highly probable that the basic and diverse subatomic particles are nothing but different spacetimes. If this theory were true, then the subatomic particles could change as spacetimes do, leading our universe to transform into other different universes possessing subatomic particles different from those of our current universe. When spacetimes change, diverse subatomic particles are formed, such that each subatomic particle is equivalent to a unique structure of spacetime. It is always possible to have different structures of spacetime, which explains the diversity of the subatomic particles.

The subatomic particles are also scientifically described as abstract wave functions, i.e., mathematical functions [3]. The best explanation of the fact that subatomic particles are mathematical functions is that they are spacetimes because spacetimes are mathematical constructs. This shows that the spacetime theory of the universe is successful in accounting for the basic scientific description of the subatomic particles, leading us to legitimately infer that the spacetime theory of the universe is plausible.

In addition, particles behave as particles and waves although particles are the opposite of waves [4]. The spacetime theory is also successful in accounting for this scientific fact. Spacetimes do not occupy specific spacetimes because they are spacetimes in the sense of being mathematical constructs. This is why, from the perspective of our spacetime, particles as spacetimes could be in different places at the same time, leading the particles to behave as waves, which don't exist in specific spacetimes, although they also behave as particles. In other words, particles behave as particles and waves at the same time because particles are spacetimes which don't occupy specific spacetimes. Since particles as spacetimes don't occupy specific spacetimes, while waves don't exist in specific spacetimes, it follows that particles behave as waves.

Particles as spacetimes also behave as particles because they gain or lose energy as particles do. When a particle as spacetime is stretched, such as an electron being stretched such that it reaches a higher orbital within an atom, it is in a state of gaining energy, while if it is not stretched, which amounts to falling to a lower orbital within an atom, it is in a state of losing energy. All of this shows that the view that particles are spacetimes is successful in accounting for particles' gain or loss of energy, as it is successful in accounting for the scientific fact that particles behave as particles and waves at the same time.

Spacetimes and the Laws of Nature

The spacetime theory of the universe successfully explains why spacetime is fundamental in any physics. For the spacetime theory, spacetime is fundamental in any physics because the universe is built out of spacetimes. Further, since spacetimes are the building blocks of the universe, while spacetimes are mathematical constructs, it is natural that the laws of nature are nothing but mathematical equations. In other words, our universe is governed by mathematical equations, which are called laws of nature, because it is built out of spacetimes, which are mathematical constructs. Our universe is mathematical because it is constructed out of spacetimes. This is how the spacetime theory successfully explains why mathematics is the language of our universe, such that the laws of nature are written in mathematical equations.

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