

How the Universe Transforms into Other Universes

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Transformantism is a scientific hypothesis which says that there is a unique law of nature enabling a universe to transform into another universe, leading to the existence of transformant universes. This law is the following: $u = \infty P_s \div E$, such that u is uncertainty, ∞P_s is all of the infinite probabilities, and E is energy. We could call this law the transformantalist law because it explains how a universe could transform into a different universe.

Uncertainty, Probabilities and Energy

If there are different and opposing probabilities, then and only then there is uncertainty. This is why we are justified in analyzing uncertainty in terms of probabilities. In light of this consideration, the maximum uncertainty is equivalent to the maximum number of probabilities which amounts to infinite probabilities. This leads to the conclusion that uncertainty must be analyzed in terms of infinite probabilities, exactly as the previous law says.

The law $u = \infty P_s \div E$ is a special case of the general law $u = \Sigma P_s \div E$ (such that ΣP_s is the sum of all the probabilities) when ΣP_s is infinite. We need energy in this law in order to enable the probabilities to be manifested because without energy nothing could be done. The law $u = \Sigma P_s \div E$ accounts for this fact in the following way: since $u = \Sigma P_s \div E$, it follows that $E \times u = \Sigma P_s$, leading to the conclusion that more energy is needed to obtain more probabilities. The success of this law in accounting for the fact that more energy is needed in order to obtain more probabilities speaks for its acceptance.

The Transformantalist Law, the Universe, and Information

The law $u = \Sigma P_s \div E$ predicts that the basic building blocks of nature have the least possible energy because 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. This prediction is consistent with a scientific paradigm, according to which, every object in the universe consists of information [1]. Given this prediction of the transformantalist law which says that the basic building blocks of nature have the least possible energy, and since the bit of information is equivalent to the minimum possible energy, it follows that the universe is constructed out of information as some physicists say, such as John Wheeler. This shows that the law $u = \Sigma P_s \div E$ is compatible with the scientific paradigm which analyzes the universe as being a set of information.

The Existence of Transformant Universes

Our universe is governed by uncertainty, such as the uncertainty principle of Heisenberg, according to which, the position of a particle and its momentum are uncertain at the same time [2]. But if $u = \infty P_s \div E$, i.e. if uncertainty is equal to the infinite probabilities divided by energy, it follows that our uncertain universe entails all of the infinite probabilities. Our uncertain universe is an actual existent universe. Hence, all of the infinite probabilities could be actualized and manifested in our uncertain universe (given that uncertainty is equal to the infinite probabilities divided by energy), leading to the formation of all the infinite parallel universes within our actual universe (such that different probabilities are actualized in different universes which our actual universe transforms into). This shows that our universe could become any possible universe from among the infinite parallel universes because our universe is uncertain while uncertainty equals all the infinite probabilities, which are equivalent to the infinite and diverse parallel universes, divided by energy. Therefore, $u = \infty P_s \div E$ is the law of nature which enables a universe, such as ours, to transform into any other different universe from among all of the infinite parallel universes.

A Scientific Law Explaining the Existence of the Universe

According to the law $u = \Sigma P_s \div E$, uncertainty is the measure of probabilities divided by energy. So even if we start with uncertainty, such as nothingness governed by uncertainty, we will end up with the existence of probabilities and energy, leading to the formation of universes, such as our own universe. In other words, the transformantalist law is successful in explaining how our universe existed. Given that $u = \infty P_s \div E$, E

could not be equal to zero, otherwise zero (i.e. E as being equal to zero) multiplied by a certain number u (such that u is the value of uncertainty) would be equal to an infinite number (i.e. would be equal to ∞ Ps), which is impossible. And since E could not be equal to zero, and given $u = \infty \text{ Ps} \div E$, it follows that certain probabilities will be actualized and manifested, leading to the existence of our universe.

The law $u = \Sigma \text{ Ps} \div E$ predicts that more energy implies less uncertainty, while less energy implies more uncertainty. If this prediction is false, then the previous law is false. Hence, the law $u = \Sigma \text{ Ps} \div E$ could be tested, leading to the conclusion that it is scientific.

References

- [1]. Seth Lloyd: *Programming the Universe: A Quantum Computer Scientist Takes on the Cosmos*. 2007. Vintage.
- [2]. David Lindley: *Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science*. 2008. Anchor.

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