

On music, universes, and minds.

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A short thought experiment essay noting the similarities between the nature of a musical song with its listening observer and the physical Universe as conscious human minds understand and experience it.

"Music gives a soul to the universe, wings to the mind, flight to the imagination, and life to everything."
-- Plato

"After silence, that which comes nearest to expressing the inexpressible is music."
-- Aldous Huxley

"62. Thus, although each created Monad represents the whole universe, it represents more distinctly the body which specially pertains to it, and of which it is the entelechy; and as this body expresses the whole universe through the interconnection of all matter in the plenum, the soul also represents the whole universe in representing this body, which belongs to it in a special way."
-- Gottfried W. Leibniz 1712 (foreshadowing the holographic universe theory)

"Without music, life would be a mistake."
-- Friedrich Nietzsche

Outside of scale, what is the difference between a song and a Universe? Perhaps, the answer is, none! Consider the pattern-match of a musical song to a Universe. Compare and contrast them using these simple definitions:

- A universe - involves relationships between objects that change over time. In order to instantiate "change," there must exist time (i.e., an ability to place events into a sequential order). Order events in the sense of ranking events i.e., X comes before Y comes before Z, an activity which requires "memory." There is a start or beginning to the Universe (the Big Bang) and there must be an end (Big Crunch or Big Rip) - or else the "somethings" (events, relationships, particles) will ultimately be simply "everything possible" and then there is no "distinction" between randomness versus form e.g., every possible combination of relationships would then include noise and thus there is no discerning of a distinction between randomness and form. The act of discerning, again, requiring an entity that has a consciousness and/or a mind with a memory. Constructively, we have discreteness in the sense of Quantum Mechanics where there are ultimate baseline units of objects that are exactly identical and consistent (particles and photons) in a stage or background of time and space (the defining yardstick being the speed of light) and "rules" deriving from the a priori Fundamental Laws of Physics with their associated constants. The actual instantiation of a given Universe is likely driven by (and perhaps requires) conscious minds to collapse Quantum Mechanical probabilistic Schrodinger wave functions and where "beauty" is recognized as structure and symmetry within these changes over time.

- A song – involves relationships between notes that change over time. Notes are ordered from the start to the end of the song; a song must end. The song exists in our minds. Notes are discrete and consistent and fundamental existing in a background of octaves. Songs require a mind to store in memory and to “experience” which requires the entire context. Beauty is recognized as structure or melody and harmony with symmetry in form and repetition versus noise and random disorder.

Now, let us extend the analogy. Do we, thus, love music as it is the very act of “Universe building” i.e., a mind listening to a song emulates THE existential act as close to its purest form as a human-scale mind can achieve? If human minds are required to instantiate a song, does this imply a cosmic-scale or eternal omniscient mind is required to instantiate (experience or create) a Universe? As humans compare songs would this theological-scale cosmic mind compare Universes in an even vaster multiverse. Are Universes then simply cosmic level songs? A cosmic-scale mind could store and “appreciate” a song that is billions or trillions of years old, that has many more dimensions of “notes” than a human mind could track (variety of fundamental particles and forces and a spacetime with length, width, and height dimensions) and “beauty” (structure and symmetry) as formulated within the a priori Laws of Physics. The fact that the laws are encoded or determined before (or at the very start of) the creation of the Universe is one of the most incredible puzzles of all existence and key to our analogy.

At a personal level, I am terrified of the idea that all the majestic songs of humanity could be lost to time and eternity i.e., how can I literally save my iTunes playlist for billions of years to share the joy with future generations and human minds? But, perhaps, there is no need to worry nor to preserve these melodies. Perhaps every time we listen to a song, we, quite literally, are emulating THE fundamental activity of existence. Perhaps Leibniz was wrong in believing that in every foundational monad there was a holographic representation of the entire Universe as, perhaps, rather in every song we have at the smallest of scales a model, template, or example of a Universe or of instantiating a Universe?