## The Universe is Alive:

## Minds Create All Forces, Energy, and Mass

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Introduction: The concepts of force, mass, and energy are the basis of all current models in physics. These models can successfully predict many experimentally measurable properties and behaviors with great accuracy and are therefore extremely useful. However, none of these models predict the existence of mind and consciousness.[2] Because mind and consciousness do exist, these inert models of physics are incomplete. Here a new model is proposed that incorporates mind and consciousness. In this model, mind and consciousness instigate and control all forces, energy, and mass [2,3,4].

**Background:** In the quantum realm forces are associated with the exchange of wave-particles or more accurately quantized perturbations in the fields between the things experiencing the force. The possible exception is the gravitational force, where the proposed graviton wave-particles are of such low energy that they have not yet been experimentally observed. There are currently thought to be four known fundamental forces: strong nuclear, weak nuclear, electromagnetic, and gravitational.

All things are subject to all forces simultaneously, but the range of each force is different. The range of strong and weak nuclear forces is limited to the nucleus, but the electromagnetic and gravitational forces have unlimited range. The range of strong and weak nuclear forces is less than about  $2 \times 10^{-15}$  m, the approximate diameter of an atomic nucleus. The range of the electromagnetic force is infinite, but the diameters of the atoms and ions where nuclei hold electrons by electromagnetic force in ions, molecules, rocks, oceans, and biological organisms varies between about  $1 \times 10^{-10}$  to  $5 \times 10^{-10}$  m, about 100,000 times larger than the nuclei within them. The size of biological organisms ranges from about  $1 \times 10^{-7}$ 

m for a bacteriophage virus,  $1 \times 10^{-5}$  m for a bacterium,  $1 \times 10^{-4}$  m for a paramecium, up to about 100 m for larger biological organisms.

Nerve signals in advanced biological organisms like animals and humans travel at about 10 m/sec, so that it takes about 0.1 seconds for a nerve signal to reach the brain of a human. This can be compared to the  $0.7 \times 10^{-23}$  seconds for a gluon traveling at the speed of light to traverse a nucleus. If we assume that this time is equivalent to 1 second of "nuclear time", 1 second of human time is equivalent to  $1.4 \times 10^{22}$  seconds of nuclear time. From the reference frame of the gluon, 1 second of biological time is  $4.4 \times 10^{14}$  years, i.e. 440 trillion years, much longer than the age of the Universe since the Big Bang.

The Postulates of Consciousness: It is well established that the internal mechanisms behind the changes in momentum exhibited by an advanced biological animal are its nervous system and its muscles. But it is the <u>mind</u> of the animal that controls its specific changes in momentum within the limitations due to external forces and its capabilities. But what about other biological organisms like plants, fungi, single-celled organisms, and viruses?

Plants clearly respond to stimuli such as sunlight, water, and fertilizer. They exhibit characteristic behaviors in response to these stimuli. If one watches a video of a single-celled organism like a paramecium, it is evident that the paramecium responds to its environment and likes food. Fungi also respond to stimuli, as do viruses. But are these responses purely "mechanical" and inert, or do these organisms also have minds and consciousness? Since larger organisms have minds and consciousness, there is no reason to think that a paramecium, plant, fungus, or virus does not. Within the limitations of external forces and its abilities, the mind of the biological being controls its specific behaviors, hence specific changes in momentum, hence specific forces.

What about non-biological forces? First, we immediately note that it is the nuclear and electromagnetic forces that build nuclei, electrons,

atoms, molecules, and biological organisms including their nervous systems. Are the nuclear and electromagnetic forces that build nuclei, atoms, molecules, rocks, oceans, biological beings, stars, planets, galaxies, and the universe also produced by minds? It is important to recognize that the Heisenberg Uncertainty Principle forbids knowledge of the details of interactions in the quantum realms [5]. An entire universe of interactions in the quantum realms are hidden from biological organisms. Therefore, although it cannot presently be proved, this suggests several legitimate postulates that are consistent with observations:

Postulate 1 : All changes in momentum, i.e. all forces, are instigated and controlled by minds (consciousnesses).

Postulate 2: Wherever there are forces, there are minds that instigate and control them.

Postulate 3: The mind of an entity is the collective consciousness of the minds that make it up.

Postulate 4: Civilizations of conscious minds in the quantum realms (the nuclear and atomic-molecular realms) exhibit behaviors that manifest themselves as "forces", mass, and energy to conscious beings in larger-slower space-time realms (e.g. the biological and astronomical space-time realms).

Postulate 5: Civilizations of minds in the quantum realms operate trillions of times faster than minds in the biological and astronomical realms. The minds there construct us, live in us, and design us.

Postulate 6: The universe is built by conscious beings who live their lives in different space- time realms, parallel "universes".

Postulate 7: The beings in smaller-faster realms have had more time (from their perspective) to stabilize their behavior than beings in larger-slower realms.

Postulate 8: When we biological beings die, we break down into molecules and atoms and return to the smaller-faster universe that built us.

<u>Conclusions:</u> Ultimately, civilizations of conscious minds create all forces, mass, and energy. The Universe is alive.

## References

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