

## Minds Create All Forces, Energy, and Mass

### A Unified Model of A Conscious Universe

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The concepts of force, mass, and energy are the basis of all current models in physics, engineering, chemistry, and biochemistry. These models can successfully predict many experimentally measurable properties with great accuracy and are therefore extremely useful. In the quantum realm the 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 1-30 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.

It is well established that the behavior, hence the specific changes in momentum, exhibited by an advanced biological animal are controlled by its nervous system and muscles as well as by external forces. But it is the ***mind*** 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 plants, single celled organisms, and 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, or fungus does not. The mind of the biological being controls its specific behaviors, hence changes in momentum, hence forces.

What about the 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? Although it cannot presently be proved, this is a legitimate postulate and is consistent with observations.

Therefore, in accordance with this possibility, the following postulates are proposed:

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 : 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 universe that built us.