The Gods are Within Us

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All great truths begin as blasphemies...George Bernard Shaw

Newton saw the apple fall from the tree. To explain the fact that the apple went down he invented the idea of force

The photons and sound from the tv reached my eyes and ears. The retinas of my eyes mapped the pattern of photons from the bottle of beer on the screen and converted it to a pattern of nerve impulses¹ which were transmitted by other neurons and other cells into my brain where the nerve impulse pattern spread and changed. The cochlear cells in my ears converted the sound frequencies to nerve impulses which were transmitted by other neurons and cells into my brain where they merged with the nerve impulse pattern from the beer bottle photons. All the known laws of chemistry and physics were exactly followed in this sequence of events.

This sequence of causal events in my brain eventually resulted in neuronal impulses that stimulated muscle contractions of my body that had me walk to the refrigerator and get a bottle of ice cold beer. The sequence of microscopic and chemical level events obeyed all the known laws of physics and chemistry exactly. In that sense, the behavior was "mechanical". From the perspective of present day science, no consciousness was necessary to explain these events.

Although science explains the molecular level "mechanical" details very well², it does not yet explain the *undeniable*³ fact that *my consciousness does exist*. The physics and chemistry did not predict the existence of my consciousness. Nor could the physics and chemistry predict *why that particular change* in momentum occurred as opposed to some other. The truth is that it was my consciousness that caused the changes in my momentum.

The action potentials (nerve impulses) are surges of K⁺ influx and Na⁺ efflux that propagate through the neuronal (axonal) membranes. They terminate at synapses, the clefts and gaps between neurons. Then at the synapses the neurotransmitters and other control molecules are released. Receptors on the other side of the synaptic cleft bind the neurotransmitters and new responses are stimulated in the "receiving" neuron. It is all causal and deterministic. It is understandable biochemically and biophysically. It produces patterns of electrical activity in our brains and in analogous pathways to control our organs, glands, muscles, and our behavior.

² There are still many details to learn, hence the continuing need for research in physics, chemistry, biochemistry, biophysics, etc.

³ You can deny it, but you prove it each time you do anything.

Within limitations, e.g. on the surface of Earth, my consciousness can initiate and create changes in momentum of my body and through its action other bodies, i.e. create forces. The ability to change its own momentum is a defining characteristic of a conscious intelligent being.

Clearly there are other biological beings than humans that have consciousness, for example dogs, frogs, fish, bugs, single celled organisms, ... How far "down" does consciousness go? Certainly all of these can also change their own momenta and the momenta of other bodies. So can plants. So can planets and stars....

Whence does consciousness arise if its existence is not predicted by chemistry and physics? Or if there is a connection what is it? Is there a threshold of interconnectedness and complexity beyond which machines which were previously unconscious become conscious? This seems to be the consensus of most scientists,⁴ and may turn out to be true. But it has not been proved. Since it has not, what alternative ideas make sense? Where is the consciousness and what has it?

As discussed above:

In the case of biological beings, consciousness seems to present in objects that can within limitations control their own momentum, i.e. create forces.

Without more direct proof or disproof, application of Occam's Razor⁵ suggests the following postulates:

Wherever there are forces there are conscious beings whose behaviors create the forces.

Conversely, wherever there are conscious beings forces are manifested.

The force that dominates the physics and chemistry of biological conscious beings is the electromagnetic force. This is the force between negatively charged electrons and positively charged nuclei that creates atoms and molecules. Electromagnetism is also responsible for all the atomic and molecular level behaviors that make biological beings like humans work. So where are the conscious beings that create the electromagnetic force?

If the postulate is correct one expects that the electromagnetic force itself arises from the behaviors of intelligent conscious beings. The same holds true for the four known fundamental forces: Strong nuclear,⁶ Weak nuclear,⁷ Electromagnetic, and Gravitational.

But how can that be?

⁴ Reference for threshold of consciousness such as The Selfish Gene by Richard Dawkins

⁵ https://en.wikipedia.org/wiki/Occam's_razor "It is futile to do with more things that which can be done with fewer" or "the simplest explanation that works is usually the best"

⁶ https://en.wikipedia.org/wiki/Gluon

⁷ https://en.wikipedia.org/wiki/W_and_Z_bosons

Herein it is proposed that conscious beings such as humans are built by consciousnesses at the smaller and faster atomic and nuclear levels. Based on ideas first presented in my earlier book, Theory of Consciousness, human consciousnesses and indeed all biological consciousnesses are the "civilization consciousnesses" of ensembles of subatomic conscious beings that exist as individuals in the quantum realm. Entire civilizations of individual beings in the quantum realm build the "infrastructure" of beings in the biological realm. Because they are femtoscopic (a proton diameter is about 1 femtometer or 10⁻¹⁵ meter...an electron diameter is about .001 femtometer) the time scale that these quantum beings experience is different than the time scale we biological consciousnesses experience. They are aware of our biological consciousnesses...even the thoughts we think... because our consciousnesses are built from theirs. To them we move ponderously slowly. A single human step could be the result of many billions of years of intelligent quantum realm actions from their perspective. Entire civilizations of subatomic conscious beings build our molecules and cells. These subatomic "quantum realm" beings operate on a much faster time scale than biological beings. Their intelligence builds every subtle aspect of biological beings like us, including our thoughts and actions.

Beings such as humans live in the biological realm of consciousness. What enables us to change our own momenta and that of other "objects" is achieved via intelligently designed biochemical processes such as synaptic transmission, action potentials, muscle contractions, proteins, receptors, enzymes, hormones, transmitter molecules, energy molecules, etc. And the "manual" for our extremely fine-tuned processes is stored in DNA and or RNA. We are totally awesome. Our existence as conscious beings is based on intelligently regulated and coordinated molecular and atomic level processes controlled by intelligent beings in the quantum mechanical realm.

How can ensembles of femtoscopic beings combine to produce a biological being with a seemingly unitary consciousness? Here I invoke the idea of "quantum entanglement". For a system of many quantum components, it is possible for the components to organize into a single system (for example a system of coupled spins), for which any change in part of the system is felt by the system as a whole. The analog of this for biological systems could be called "biochemical entanglement", in which the biological being as a whole is built by a civilization of individual cellular and molecular components, which are in turn designed by ensembles of quantum realm beings.