

I Am Consciousness (And So Can You!)

Lecture by Neil B. Feldman
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--I have no definition for what Consciousness is or is not--

--What can science say on the matter?

"All scientific knowledge is uncertain. This experience with doubt and uncertainty is important. I believe that it is of very great value, and one that extends beyond the sciences. I believe that to solve any problem that has never been solved before, you leave the door to the unknown ajar. You have to permit the possibility that you do not have it exactly right. Otherwise, if you have made up your mind already, you might not solve it..."

"So what we call scientific knowledge today is a body of statements of varying degrees of certainty. Some of them are most unsure; some of them are nearly sure; but none is absolutely certain. Scientists are used to this. We know that it is consistent to be able to live and not know. Some people say, 'How can you live without knowing?' I do not know what they mean. I always live not knowing. That is easy. How do you get to know is what I want to know." - *Nobel laureate Richard P Feynman, 1963 lectures at the University of Washington.*

We are 'Conscious Beings' existing In an Observational Universe that is made entirely of Energy. Postulate:

"The world is made of energy, and energy is the Underlying Existence showing through in space and time. Gravitational energy is the Undivided showing through, electrical energy is the Infinite showing through, and Inertia is the Changeless showing through." – *Memories-An Apology 2-10-06*

What energy does has long been known by the European scientists. But what it *is* is considered to be unknown. What is it that we call energy, and why is it conserved? Why, when the form of the energy changes, does the amount never change?

Energy takes many forms. There is the energy of a wound watch, the energy of a pitched ball, and the energy of a moving train. There is the energy of a hurricane or a tsunami, the energy of sunlight, and the energy of an exploding star. And we have several *kinds* of energy in the world. We have gravitational energy, kinetic energy (which is the energy of motion), radiation, electrical and

magnetic energies, and what is called nuclear energy. The energy can change from form to form. In the collapse of a hydrogen cloud to form a star, the gravitational energy is converted first to kinetic energy and thence to radiation, but with no change in the amount. In a swinging pendulum, gravitational energy is transformed to kinetic energy on the down-swing, and back to gravitational energy on the up-swing, but the total amount of energy remains constant. It is easy to change the form of the energy, but it is impossible to change the amount of energy.

Now the entire Universe is made out of energy. It is not made out of anything else, like force or momentum or electric charge. And since energy appears to be the underlying existence showing (*to consciousness!*) as Changeless through the changes in time, we have both the Conservation of Energy law and inertia. Also, since momentum is the space component of the energy, we have the Conservation of Momentum law, both linear and angular as well. However, the Universe is not made out of momentum, so momentum comes in as pairs of opposites like plus and minus electrical charges so that the total goes to zero. The energy of the Universe does not go to zero.

The problem of the energies was pretty well sorted out by the ancients. There are only six kinds of energy, and five of them were known to the ancients. They knew that when you picked something up you put energy into it which came out again when it fell. They called this "potential energy" because it seemed to be in there even when it wasn't doing anything and because it was related to position in space (in the gravitational field).

They also knew that things had energy due to their motion. That's what makes it dangerous to get in front of a pitched baseball or a moving train. This energy of motion they called "kinetic energy", and they knew that its amount depended on the mass of the moving object and on its speed.

The ancients also knew that radiation was a form of energy because sunlight warms things. And they knew a little about electricity and magnetism. Like gravitational energy, electrical energy is referred to as potential because it seems to be in there even when it's not doing anything, and because it also is related to position in space (in the electrical field).

It seems the ancients did not know about what we call "nuclear energy", the energy associated with radioactivity and nuclear power plants, and which is also potential energy because it's related to position in the nucleus of the atom. But long ago, several thousand years ago, some physicists in northern India had the other five kinds of energy associated with our senses of perception: gravity with the ear, kinetic energy with the skin, radiation with the eye, and electricity and magnetism with the tongue and nose.

Our orientation in the gravitational field is perceived through the saccule in the ear. Kinetic energy as temperature, is perceived through the skin. (Temperature is a measure of the mean kinetic energy of the molecules.) Radiation is perceived through the eyes. (But there are many kinds of radiation not perceivable by eye, such as radio waves, microwaves, infrared, ultraviolet, x-rays, and gamma rays.) Finally, electricity and magnetism are perceived through the tongue and nose. (Protons taste sour, and the molecules which we detect by smell are held together by magnetic bonds.)

These five energies, perceivable by our five senses, were referred to by the ancients as five elements out of which the Universe is made. In Sanskrit they are called: Akasha, Vayu, Tejas, Ap, and Prithivi. Akasha means sky, space, and "the first principle of materiality" which we would have to say is hydrogen. But as the first of the five energies it is the one associated with position in space (in the gravitational field.) Vayu means energy or wind (not air.) Tejas means "that which shines" (not necessarily fire.) And Ap and Prithivi mean water and earth.

You might ask: Why should electricity be called the water element? Well, our own word electricity comes from the Greek word for amber; so you must also ask: Why did the Greeks call it the amber element? That's because if you stroke a cat's fur with amber, the amber picks up an electrical charge by which it is able to pick up bits of paper. Try it! But although amber is not itself electrical, the water molecule is. It has an oxygen atom on one side with two extra electrons (negatively charged) and two protons on the other side (positively charged.) That's why it is so good at dissolving electrical molecules like salt, but it's a little hard now to say why the ancients used the term "earth" for magnetism. – Astronomy for Children Great and Small 1997

It was suggested long, long ago that what we see in this world is pairs of opposites: east against west, north against south, up against down and future against past. We see momentum to the right against momentum to the left, angular momentum in one direction against angular momentum in the opposite direction, and spin-up against spin-down. We see plus against minus, and the gravitational direction (spaced out) against the electrical direction (spaced in). The question still remains: since Einstein's geometry puts space and time in as a pair of opposites, why does space have three dimensions and time have only one?

It might be that if space had only one dimension, space and time, as a pair of opposites, might cancel each other out so that we would see no Universe at all. We actually see the Universe "away from us" in space by seeing it "back in time" – in just such a way that the space and time separations between us and what we see add up to zero. We see it as a picture spread out in two dimensions

in the plane perpendicular to our line sight. But in the absence of those other two dimensions we might see no Universe at all.

The Universe could have been real in three dimensions. It could not be real in two dimensions, for it would lack depth and substance. When we watch a movie or a television screen, we seem to see a three dimensional world "behind" the screen. But there is always the awareness that the screen is two-dimensional and that the three-dimensional world which we seem to see behind it is actually illusory. We watch with the conviction that the movie theatre or the room in which we watch the television is three-dimensional and "real". But alas, the physics won't allow it. The Universe which we see is actually four-dimensional and the separation between us and what we see always stands at zero.

"Quantum Mechanics is the observational evidence that the geometry of what is known in the trade as the "real world" is four dimensional, and that space and time come into that geometry as a pair of opposites, so that the space-time separations between the emission and absorption events for what are known in the trade as "photons" and "gravitons" are zero. That allows us to see, by mistake, a Universe spread out before us with zero separation between us and what we see, and with zero separation between us and what affects us by gravity. It is like a dream, but the separation is *objectively* zero. – Observational Evidence – 2-26-03

Einstein was very much concerned about the origin of our concepts of time and space and he wrote, "It appears to me, therefore, that the formation of the concept of the material object must precede our concepts of time and space." It would seem, then, that the concept of a material object arises in our genetic programming through the identification of the Perceiver with a physical organism.

Perhaps it is the genetic programming itself the "veils" the Changeless, the Infinite, the Undivided, and projects in its place the changing, the finite, and the divided. Thus we (*as conscious beings*) see the Changeless as inertia, (energy), the Infinite as electricity, and the Undivided as gravity. And we see the attraction between opposites like plus and minus charges and spin-up and spin-down.

If our genetic programming is indeed responsible for this apparent misperception, then we can understand why we run after peace, freedom, and love. Peace and security is the Changeless. Freedom is the Infinite. Love is the Undivided showing through in our genetic programming. But our genes have us persuaded to chase these reflections in ways that get the prime directive of our genetic programming fulfilled. After all, the only thing that survives in the gene pool is babies. So any programming that gives rise to babies survives.

Meanwhile our "vital energy", by eating and breathing, is borrowed from the Sun.
– Energy 1997

Is Consciousness conserved?

Which comes first? Does consciousness create the vehicle? Or is consciousness a by-product of the vehicle

Sentiency

For any cosmological model in which the Universe is considered to be "actual" the problem of the origin of sentiency and intelligence is insoluble. But if the Universe is "apparitional" then sentiency is in it from the word "go". Even the atoms are "sentient". We have senses for the perception of gravity, kinetic energy, radiation, electricity, and magnetism because the individual protoplasmic cells can respond to these same five kinds of energy. And the cells can respond to them because the atoms respond to them. The atoms themselves respond to gravity, kinetic energy, radiation, electricity, and magnetism. The plumb bob "knows" where the Earth is and the electron "knows" where the proton is. Sentiency is in this from the word "go" because the "underlying existence" is "involved" in what we see and it must show through.

It is hopeless to expect that something like sentiency or intelligence, or anything for that matter, could arise by "evolution" (as, for example, a rose evolves from a bud), unless it was first put in by "involution". The reason the oak tree can "evolve" from the acorn is because it was first put in the acorn through "involution" by the parent trees. In the case of the tree and the acorn the "involution" is by "transformational causation" or *parinama*. Whereas in the case of the "underlying existence and the observable Universe the "involution" is by "apparitional causation" or *vivarta*. What underlies the Universe is involved by apparition in us and what we see. And since what underlies all this is infinite there is no knowing what may evolve.¹

The expectation that sentiency and intelligence might arise from "inert matter" is contrary to all the experience of our race. However, matter is not inert. It is "ert" (i.e. it moves by itself) because what underlies the apparition shows through. The notion that what is more might evolve from what is less is beyond the domain of reason.

Intelligence

¹ c.f. Teilhard de Chardin: "In the world, nothing could ever burst forth as final across the different thresholds successively traversed by evolution (however critical they may be) which has not already existed in an obscure and primordial way..." *Phenomenon of Man*. New York: Harper and Row, 1955. Book One, Chapter 3, Section I B.

So sentiency arises by apparition and is with us from the word "go", but how about intelligence? Intelligence as we know it is associated with the egos of poly-celled organisms, like ourselves, who have brains. Brains come down through a long "transformational past". Even our individual brains have a "transformational past" from a single cell to where we are now. Each of our bodies is made up of a very great number of cells and yet we have no awareness of the egos of those individual cells. Still, each of us, at the time of conception, was once a one-celled organism without a brain. Regardless, that single cell had a complete human form "transformationally" involved in its genetic code through the grace of our parents.

So although sentiency might arise "apparitionally" it looks as though intelligence arises "transformationally". It looks as though intelligence, like egotism, is a genetic invention which favors survival. And it also looks as though what we proudly think of as our "advanced" state of intelligence was forced upon us by the use of tools and language.

The "underlying existence" shows through in what we see. What difference does it make whether you think of It s the Formless, or call it Mother, or Father? The question that remains is this: *does the pull of the "underlying existence" (the Changeless, the Infinite, and the Undivided) pull matter across the border from the non-living to the living? Does it pull sentiency to intelligence? Does it pull the saints to final beatitude?*

Does that Oneness, through molecular discrimination, pull what we see as matter into life? Does it, through the discriminations of the ego, pull sentiency to intelligence? And does it, through the discrimination between the real and the make-believe, pull the emotions of the saints to the goal?

We are like Xerox machines looking for Xerox machines to copy. Because the "underlying existence" shows through in us we are pulled toward peace and love and freedom, and we look for them in others. If we see a special manifestation of peace and serenity, or of love and happiness, or of strength and freedom, or of compassion, our hearts open and we are drawn to it. All animals, when they mate, pick our species characteristics, and so do we. It is probably our tendency to breed in this direction that has separated us so far from other animals. And in this tendency I see the hope for our future.

Is Consciousness = Energy = the Infinite, the Undivided, the Unchanging?

If it is our "genetic programming" that pulls the wool over our eyes we shouldn't complain. After all, the eyes themselves are genetic, and the eye invented the brain.

In the long history of genetic evolution our brain was invented by our eyes. Among the *protists* (the single-celled organisms with a nucleus, which the bacteria lacked), the *Euglena* has a little orange spot to tell it where the light is, and flagella to get it there. Long later, when the eyes became more complicated, they need an organ to interpret what they saw and they made it out of flagella. That is the brain, and that's why flagella protein occurs in the brain. So cheer up! The genes that pull the wool over our eyes made the eyes themselves, and then the brain.

Now the European physicists and philosophers took for granted that matter is both insentient and inert. The Sankhyans in India took for granted that matter is insentient but "ert" (active). The Vedantins in India took for granted that matter is both sentient and ert. How could anyone who lives in an earthquake zone take for granted that matter is inert? We don't push those mountains around; they push each other around. And if the stone didn't know where the Earth is, it would certainly not fall *toward* it.

Now the Vedantins say that in order to mistake a rope for a snake, you must fail to see the rope rightly through the *veiling power* of *tamas*, and you must jump to the wrong conclusion through the *projecting power* of *rajas*. But you must have seen the rope in the first place through the *revealing power* of *sattva*, or the mistake might have taken some other form.

Now the interesting thing is this: our "genetic programming" appears to have *veiled* the Changeless, the Infinite, and the Undivided and *projected* the changing, the finite, and the divided in its place. So we see that the veiling and projecting powers are native to our "genetic programming." But the revealing power is native to sentiency itself. It is the sentiency inherent in matter and ourselves that allows us to see the Changeless showing through as inertia in matter and as the search for peace and security in ourselves. It is that sentiency that allows us to see the Infinite showing through as the electrical charge on the miniscule particles of matter and as the search for freedom in ourselves. Finally it is the sentiency that allows us to see the Undivided showing through as gravity in matter and as love in ourselves. And sentiency is native to existence itself.

Bravo, the genes! But keep your eyes open! That which is beyond the genes is really what you are. – Sentiency 1997