

Energy – Basic In Reality

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The Human Focus on the Material

Most people are minimally informed about what energy is and how important it is in our reality. The basic reason for this lack of understanding is that we humans are so focused on the material domain as defining our reality.

Why is this the case?

- 1) We are material creatures, and we have evolved among other material creatures competing for our survival. In evolving in this context, our traits that favor close attention to these other competing creatures and access to the resources we need have been favored while other traits have been less developed. In the modern context of human species domination of the planet, our favored competitive traits are much less relevant – even serving to impede making needed progress. We can elect to emphasize our cooperative side!
- 2) All energy is immaterial so our nearly exclusive focus as humans on the material realm ignores consideration of energy for the most part. Even in science, energy is most often studied secondarily or developed as a tool technologically to reveal more about or to influence the material domain.
- 3) The vast extent of the material/physical reality that we have discovered mainly in the last 100+ years serves to confirm our material view of reality.
- 4) Our perceptual capabilities have focused primarily on the sense of sight and secondarily on what we hear. What we view as reality is largely defined by what we glean from these senses, and we are exceedingly ignorant of how limited our perception is. The Visible Light spectrum, which we do not see directly but experience in the way light reflects off objects, is only .0035% of the electro-magnetic energy spectrum. 99.9975% of this energy spectrum we have almost no awareness of, even though we participate fully in it and its effects. If we were capable of perceiving directly the full electro-magnetic energy spectrum, we would be totally overwhelmed. The “space” and “air” we move through so readily would be so “dense” with waves and fields and our participation in them that we would not be able to move. And, as important as it is, the electro-magnetic energy spectrum is one among many such spectra. Of the sonic energy spectrum we are 99.9996% “blind.” So, in the larger sense, we humans “see” and “hear” virtually nothing, yet we are comfortable for the most part in relying on these senses to define the nature of our reality! From modern science we now know better, but we continue to ignore the serious implications.

Just because we humans focus on the material and are aware of so little energy does not mean energy is not hugely significant in defining our reality.

Let's explore further.

Theories of the Origin of the Universe

Big Bang, Big Bounce, and Big Oscillation theory all view the beginning of the universe in terms of a single extraordinarily powerful event which has expanded over about 13 billion years to the present vast distribution of hundreds of billions of material galaxies more than 93 billion light years in breadth. In these origin theories, energy is what begins this process with the first single atoms of hydrogen not appearing for 380,000 years. Hydrogen is the simplest material element, and all more complex elements arise later with many of the “heavy” elements not evolving until large stars arise and collapse in supernova explosions. The key point here is that energy is primary in the origination of our universe with all material phenomena emerging secondary in time and occurring as energy enters conditions when it can condense/cluster/gather/integrate into particles and then into the atoms of material elements. Of course, different atoms then interact/join under appropriate conditions to form molecules and the process of material development proceeds to more and more complex material forms – eventually leading to all forms of organic life.

Energy In Material Phenomena

Energy is the basis for this entire material development process, and it remains essential in all material forms whether simple or complex, organic or inorganic. Consider the make up of atoms – a nucleus of protons and neutrons surrounded by electrons – all of it in constant motion. Energy is the basis for this inherent motion, and motion makes it possible for atoms to interact and integrate into more complex forms. Energy is essential to all matter because it is essential to the atoms of all elements that make up all matter.

Energy is often expressed in terms of differential charge – positive and negative, and atoms reflect this charged condition with electrons being negatively charged and protons being positively charged. This initial charged condition of atoms proceeds up the development chain to become fields of more complex material forms. An example is the cell in organic life forms where within the cell’s energy field, the microvolt differential across the cell membrane is what makes it possible for nutrients to move into the cell from the outside and for waste to move from the interior of the cell to the outside – the essential process in all forms of life. Energy fields integrate and guide the development process as material forms – inorganic and organic – become more and more complex. Energy is essential to the development and ongoing existence of all matter – all material phenomena. It is not just the founding component in the creation of all matter. Without constant energy participation, all complex matter disintegrates.

The energy base of all matter is contained in the famous $E=mc^2$ equation. When matter is “destroyed,” a huge amount of energy is released – as indicated

in the enormous motion component captured in the speed of light squared element of the equation. To get an idea of how dominant energy is in our world, consider the observation made by the Nobel Prize winning electro-dynamic theoretical physicist, Richard P. Feynman, that if all of the energy in just one cubic meter of air [energy contained in waves and fields and concentrated in all the tiny material particles we can not even see] could be extracted, it would be sufficient to boil all the water of all the oceans of Earth!

Independent Energy

Energy waves and fields are not just the basis for the development and continued existence of all matter; they are everywhere all the time independent of matter. Taken together both incorporated in matter and independent of matter, we now know that our reality is composed of about 70% to 95% energy – depending on what “dark matter” actually turns out to be. Our reality does not just originate as energy, it is mostly to almost entirely energy in its present state of development. The material/physical realm that so fascinates us humans comprises only about 5% of reality. Yet we permit ourselves to define reality in terms of this tiny portion of reality in part because we have discovered this material realm to be so huge in its own right.

Energy underlies and sustains everything material, and energy provides the infinite web that connects everything into One totally integrated phenomenon. Energy is the basis for all motion, motion is change, and change is constant in our totally unified reality. Everything is vibrating simultaneously, and everything participates in every change. There is no separation, no independence of “things.” Separation and independence are illusions fostered by 1) our extraordinarily limited perception, 2) the continued “open” expansion of the universe, 3) change as a constant throughout this reality, and 4) the enormous scale of the universe in which what amount to minute changes are not recognized. Every tiny move we make registers throughout the integrated fabric of reality, but we do not perceive it; so we operate as if things are separate and we are independent with free will and able to cause specific, independent effects. And for the four reasons cited above, we mostly get away with it – until the tiny effects of our behavior as billions of individuals collect and catch up with us, as in the phenomenon of climate change or the threat of nuclear catastrophe. Otherwise we humans have successfully danced through our species evolution to the tune of our separation and independence assumptions.

The Role of Language and Language Based Analytical Thought

We humans depend on verbal language for both essential communication and as the primary tool for thinking. But such language reinforces our separatist assumptions because it is based on separate sounds used to create separate

words used to designate separate things and actions brought together in separate sentences to communicate separate thoughts. Separation is the underlying principle of our language tool and of our dominant mode of thought. And analysis relies on language, identifies the separate parts of reality, and claims to “write” the rules that inform the independent interaction of these parts.

Science depends on the rigorous use of language based analytical thought. But this thought process is grounded in the assumption of separation. Even though modern science has revealed all the elements of a reality in which energy underlies, connects and integrates everything into One entity, science continues to operate mostly under separatist assumptions and an exclusive fascination with matter – micro particle/string theory – as the foundation of reality.

Available Alternative Mental Mode

If science decides to focus on understanding the energy system on which reality is based and seeks to develop complementary tools of synthesis – rather than relying on the exclusive use of analysis, it can make a great deal of progress. The basis for these synthetic tools is present in the existing human intuitive mental process and its reliance on holistic visual thought – the source of inspiration and imagination. Many “simpler” cultures and non-western cultures have explored and utilized the intuitive mental mode with important results – most of which support the unification principle in reality. Refinement of the use of the human intuitive mental mode can bring results that serve to both greatly enhance our understanding of reality and identify more meaningful and responsible approaches to our participation in it.

The development of the analytical thought process to the point of its rigorous use took thousands of years, even though we routinely fail to meet its standards. Harnessing what the intuitive has to offer will take time, but the sophisticated use of that mode together with the existing analytical process of the intellect can bring much greater awareness of both ourselves and our reality.

Conclusion

Science has revealed that energy is the basis for reality – including all matter within reality. Significantly, in so doing, science has identified key principles in energy that are also fundamental in the spiritual perspective: importance of the immaterial, perpetual connectedness, unification, shared identity, etc. These two perspectives support one another bringing the results of the intellect and intuition into alliance. We need a major worldview change in which immaterial energy achieves the recognition and influence it deserves while the material domain is respected but retired from its position of unsupportable domination!

Balance – Always Balance!