

The Universe is Fundamentally ‘All Things’

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A foundation is the support for other things. That support can be the single ultimate fundamental platform for one or many things or it can be a container of those things. Should you search for a prime foundation, you will arrive at the universe. All things and their motions are within the universe by definition. All history and time measures ultimately relate to the universe. There really is no other fundamental foundation. So, we shall examine it.

Some thinkers design an imaginary universe which has beginnings and endings in time and space. Such borders provide places in which to play with one's imagination. We have come to respect nonsense. The universe is absolutely fundamental as it is infinite and there is only one of them. With apologies, all science fiction work about space is, and remains forever as, fiction. We won't 'time travel' into other high order universes.

The idea of foundational questions references particular things or ideas within the universe. We must also be allowed here to view foundational characteristics as sub-fundamentals.

Having claimed the universe as our fundamental foundation we now open the door to some deep investigation of the contents of the universe. The universe has been there forever. On first look the contents that make up the universe seem to be much 'open' space and some scattered material much of which we call masses. It is wrong to think of open space as being something empty such as the void. Completely empty areas have no reason to be viewed as existing. They provide nothing to size measures. So, emptiness/voids are nonexistent. But somehow open space represents existence. There is action taking place within. By default, all motion must ultimately source back to gravity. So 'gravity' must be a permanent foundation of space that makes space 'real'. At first glance then, space has matter and gravity. Is there anything else we may learn by a further analysis of material?

That brings us to the controversial topic of 'what is matter'? Currently matter is whatever has a nuclear structure. There is also EM radiation which does not have that structure. EM radiation is a rapid flowing motion that has distortions called waves within its linear flowing structure. There is a spectrum categorizing the wave frequency. At the high frequency there are so many wave repetitions that the radiation is almost matter. Science has learned that matter all has waves implying wave loops traveled by electrons. We can join matter with radiation within a spectrum

of existence which has matter extending the high frequency end of the scale. I find gravity to be long wave radiation so it extends the spectrum on the low frequency end of the spectrum where few waves occur.

We digress here for one attempt at applying 'fundamental' to a physics concept. Can we properly describe radiation waves? First off there are transverse and longitudinal waves. Longitudinal waves provide repetitive changes in the density within the beam as it travels forward. I cannot picture a cause of this action and reject any suggestion of it being fundamental. Is being correct the requirement of fundamental? Let's consider transverse waves which are shown as lateral divergences within beams also are pictured as sin waves. I partly accept that view. As the beam travels forward at speed C , the origin moves slightly sideways or laterally relative to the beam due to relative rotations and revolutions. But beyond that beams traveling within space can theoretically be observed from any of the 360 degrees surrounding the beam. Therefore, the wave is not totally 2 dimensional. The beam has something like coils, like springs in a pen, which serve as waves. I try to paint an actual picture of waves but will never fully succeed. We all grow up in different conditions and develop differing perspectives of everything. So, to many my picture of waves may be wrong or incomplete which by extension refutes their fundamentality.

A confusing characteristic of space is that things don't fall down in space. A seemingly fundamental term 'down' loses its reality in space. As we learn about the world, we ultimately have to accept that 'down' is not a foundation of the universe. In fact, down to us and down to people elsewhere on the globe differ in their relationship with space and time. Beyond that issue with 'down', imagine being untethered in space. You don't fall in any direction, but you just float, somewhat like being in water. Somehow the pressures on all sides of you are in balance. They can't be measured as zero since we refuted the void. Therefore, the pressures are real.

Gravity is summarized as attraction within Newton's system and as curved space within Relativity. Is either of these concepts fundamental? Neither curved space nor attraction is physical events as accepted by physics definitions. They are not forces available for study. What is missing is a motion source. Motion is activated by pushing. So, for the term gravity, a force originating

as a pushing pressure, becomes the fundamental definition. The term gravity should reference the source which is a pushing pressure. Attraction is simply the result of gravity acting. We must finally accept, by default, that gravity is an external push upon things from all directions. Otherwise, nothing would hold matter together. So, ends, what has been another foundation, that of Newton and his 3 laws which require total emptiness in order to avoid friction and keep orbital motions unchanging. By discarding Newtonian cosmology, we must detach gravity sourcing from matter bodies such as planets and the sun. Matter becomes simply the fundamental interference upon the push of gravity. Things 'net' out in much detail.

An iceberg floating in the ocean can represent an inverted foundation upon our visual perspective. What we see is the tip of the iceberg. It supports a huge mass of unseen ice below the murky surface. The words above simulate the surface ice serving as the tip of a more logical view of the universe. Flow some bright light onto the iceberg and get a deeper view of the mass below. Similarly,

the verbal picture above hints at an improved perspective where the flow of light helps you to see and understand the universe in which we dwell. A foundation should be built around the most logical fundamentals. The universe seeks deep thinkers.

If you wish to think deeply and begin to see the light, start with a couple of concepts:

The term gravity can refer to the source or to the detectible effect of the action of the source. The effects are motion and the existence of matter.

Gravity is a push rather than an attraction. As such it solves 'action at a distance'. It finally has a physical nature and is no longer metaphysics.

The push implies the source is external from matter. The source beams with velocity. Motion of beams is confirmed by waves within the beams. Gravitation pushes as if it contained moving particles.

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