

Reply to Dr. Bert Schreiber' comments

Answers to the questions raised require some brief introduction to the basics of Space Vortex Theory (SVT).

Schreiber: #8: There is no proof or even any finite parameters and properties of any Aether and never will be. If so, Where is it?

Tewari: The proof of eternal existence of ether and its absolute properties lies in the derivations of basic equations that explain in quantitative and qualitative terms the origin and the properties of matter like mass, charge, inertia, creation of fields (gravity, electrostatic, electromagnetic) which have, hitherto, not been satisfactorily done in contemporary physics (classical, relativistic, quantum). Ether, indeed, is property less (in terms of material properties) and is postulated in SVT [1, 2] to have no properties of matter except fluidity and breakdown of its flow at limiting velocity gradient $_$, which in electron structure (given below) is the ratio of light-transmission-velocity in and with respect to mass- less ether, and radius of electron (Fig. 2-3).

At limiting velocity-gradient of space-circulation (circulation of absolute vacuum, mass-less fluid space) space breaks down into a spherical void which is shown to be dynamically stable [1]. Mass of electron is defined as the volume integral of space velocity (within the void) before its creation:

$$m_e = (4\pi/3) r_e^3 c \quad (1),$$

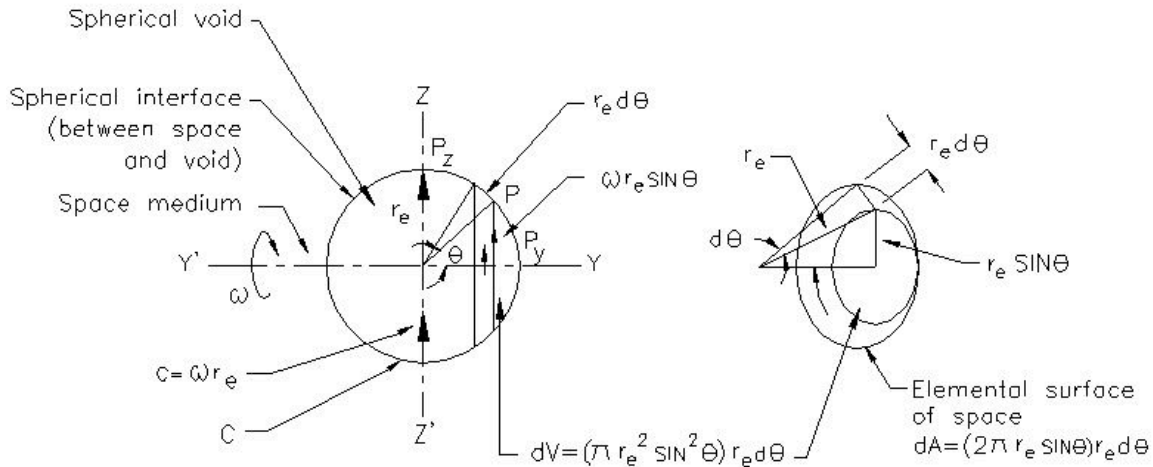
that is, mass of electron is equal to the volume of the central void in electron's vortex structure and c . [void is an energy less, field less zone of nothing ness, enclosed within a spherical interface). Similarly, charge of electron is defined as: Surface integral of space velocity on the interface enclosing the void (Refer Fig. 2-2):

$$q_e = (\pi / 4) 4 \pi r_e^2 c. \quad (2)$$

Units of mass and charge are: cm^4 / s and cm^3 / s , respectively. Also, $\text{gram} = 8.6 \times 10^4 \text{cm}^4 / \text{s}$ and charge: $\text{CGSE} = \text{cm}^3 / \text{s}$.

With the help of (1) and (2) all known universal constants (Coulomb's constant, Gravitational constant, dielectric constant (for vacuum), permeability constant (for vacuum), Planck's constant etc. are derived in terms of a single constant $_$ that is c / r_e .

Computation of mass and charge of electron from (1) and (2) and comparing them with the known experimentally determined values proves correctness of the new mass and charge equations that have been shown [1] to be universally applicable to determine mass and charge of particles, planets, sun, stars and galactic cores.



ω = Angular velocity of spherical interface around $y-y'$

Void = Fieldless spherical hole in space

Void-radius $r_e \simeq 4 \times 10^{-11} \text{ Cm}$

Fig. 2-2 Velocity Field on Interface

With above it is proved that the universe is constituted of only one absolute entity which is a mass-less volume of ether, enormously large, about $3 \times 10^{31} \text{ cm}$ radius [1], without any known property of matter. It has only one absolute property, that is, it breaks down in its circulating flow at a limiting angular velocity: 0.75×10^{21} revolutions / s [1]. Without the existence of ether with these absolute properties, there won't be even a particle of matter in the universe.

Schreiber: #1, #2, #3, #4, #5, #6, #7

Tewari:

It has not been said that In Special Theory of Relativity (STR) wave-front nature of light is used. What has been said that light truly has only wave pulse-like nature, below:

The true nature of light has been fundamentally analyzed [1, 2] in SVT with the annihilation phenomenon in which electron and positron (oppositely spinning electron) lose all of their properties of mass, charge, gravity and electromagnetic fields. Creation of electron as a stable space vortex has velocity field and acceleration fields in its structure and spread out throughout the space that appear as gravity (Figs. 16, 17) and electromagnetic fields (Fig. 8.2) [1]. In between an electron vortex and a positron vortex electrical attraction takes place due to unidirectional velocity fields between them (Fig .2-5).

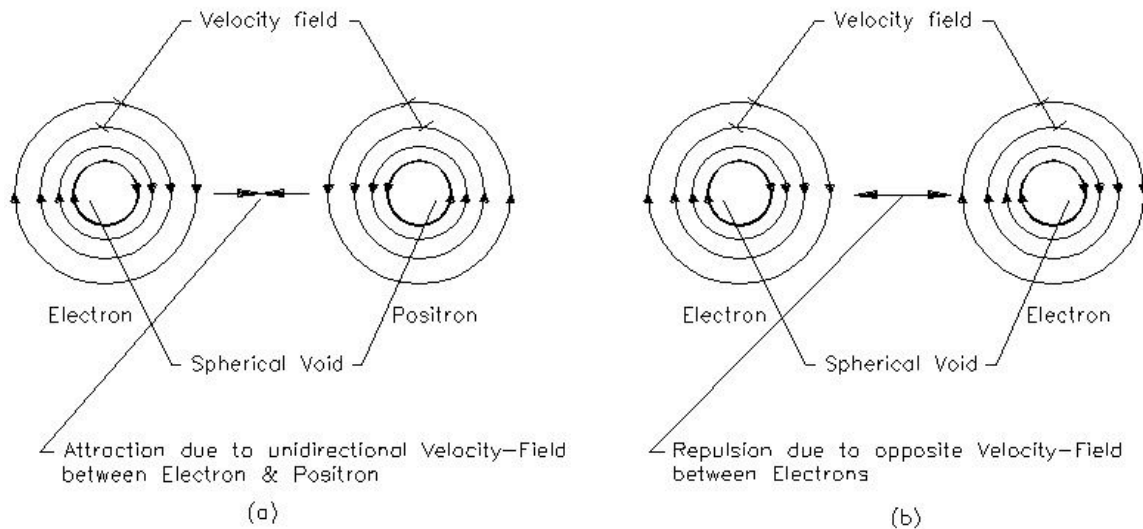


Fig. 2-5 Attractive & Repulsive Forces due to Velocity Fields

This brings the particles together till their central interfaces superpose, space circulation ceases, voids are filled with inward action of acceleration fields c^2 / r_e (shown in Fig. 2-3) and consequent to this their fields in space start collapsing to zero--the process starting from the interfaces of the particles. Fig. 8-2 shows this process. As the fields in the first shell die and light is produced, the second shell is formed and as the second shell fields die, the third shell is formed and so on. Each shell is in a new position and is a new shell destroying the fields in that location.

Angular momentum of electron is calculated [1] as $(4/5) m_e c r_e$. Due to collapse of the two voids of electron and positron, angular momentum reduces to zero in time r_e / c because space flows at velocity c into the voids of radius r_e . Energy released is: angular momentum / (r_e / c) which is: $(4 / 5) m_e c^2$, from each particle.

[This is the derivation of mass-energy equation from the structural field of electron and positron and also confirms validity of the mass equation (1) and electron's vortex structure.]

Though the particles (electron, positron) have zero energy at their centers, it's the space acceleration field on the interface and the flow of space into the void due to collapse of the voids that releases energy. The first shell formed around the interface has a definite time r_e / c and a definite wavelength $(r_e / c) c$ that is r_e and is transmitted out because space equalizes pressure/ under pressure effects at c , and in this process the spatial energy of the gravity / electrostatic fields of the particles that exist as their

structural fields is reduced to zero as the shell transmits out at c . **Light effect is due to dying of field structure of electron/ positron in annihilation process. Energy of a shell at any location is derived from the dying fields at that location; it is not the energy sent out from electron center (as conventionally believed) which is a field less void.**

Suppose that an electron and a positron are in motion relative to space along with their field structure which too moves with the particles. At some instant let annihilation occur. Thereafter, the field structure of the particles becomes static with respect to space and the light shell produced sweeps out at speed c from the point of annihilation, independent of the motion of the particles that they possessed before annihilation. Thus, **velocity of light relative to space is independent of the source's motion.** Similar process takes place with all light sources.

A line drawn from the point of annihilation to any point of the light shell in Fig.8 can be called a "Ray" only if from the point of annihilation there are successive shells without any gap in between them, otherwise, at one instant, light effect exists only within the shell shown in the figure. [Fig. 8-2 shows the initial shell formed around the annihilation point transmitted out later on to the new position as the outer shell].

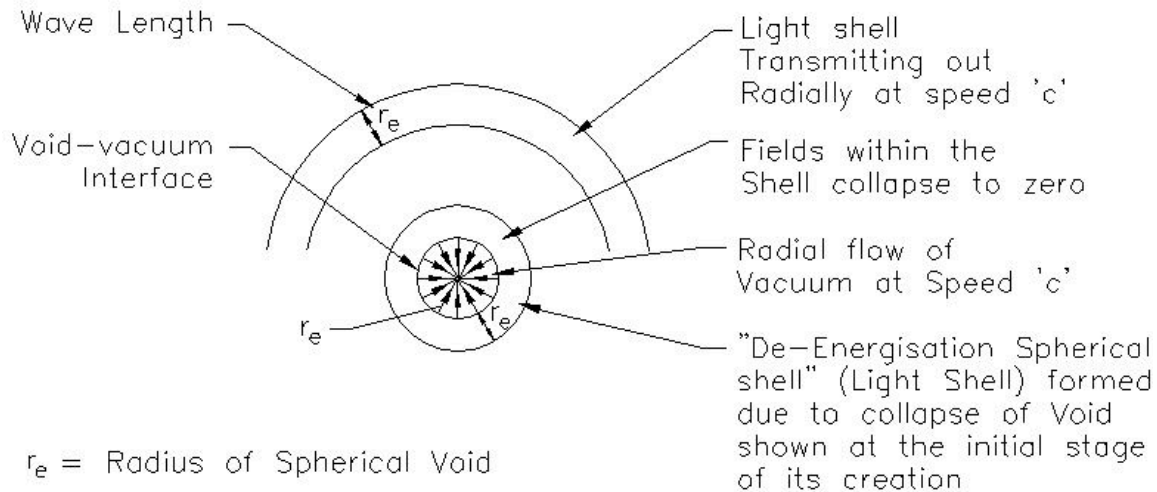
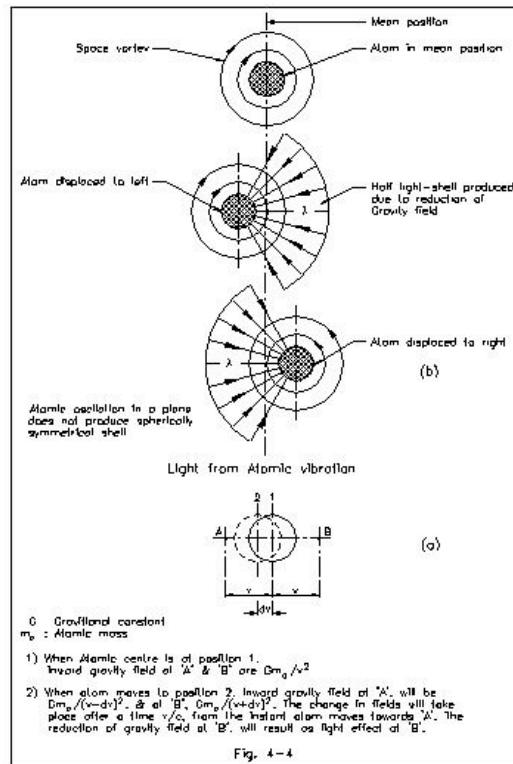


Fig. 8.2

In neutral atoms, nuclear as well as orbital electrons charges are neutralized. Only gravity field (structural field) remains out extended in the whole space [1]. Oscillation of atoms creates time varying gravitational potential (of the atoms) at each point in

space, the process starting from the vicinity of each atom and transmitting out at velocity c relative to space due to space's basic property. Derivation of Planck's constant [1] proves the above process. **No energy is sent out from either orbiting electrons (electron jumps) in the atoms as currently believed or from the mass or structural fields of atoms as a whole. Mass of a light source does not decrease with emitting radiation.** The light produced is as "half shells" (nearly) due to-and-fro motion of vibration of atoms (Fig. 4-4).



The concept of "Ray" though suited for optics, when compared to annihilation light or thermal radiation does not seem to be sufficiently accurate for precise theoretical analysis where fractions of wavelengths are involved. **In fact, fundamentally all lights are produced only as shells of light with definite wave lengths with definite time of creation for each wavelength as follows from the vortex structure of electron and atoms as discovered in SVT.**

A shell of light of wavelength λ is formed in time λ/c . Within the shell of wave length λ there is radial acceleration field c^2/λ a derived elsewhere [1, 2]. It is this acceleration field in the wavelength of light that interacts with orbital accelerating electrons in atoms to release their bond in photoelectric effect without any energy transfer to electrons. **The prevailing concept of energy transfer between electron and photon is a misconception as per SVT.**

The velocity of a wave front or a wave tail of a single shell of light transmitting in space

from a source at velocity c relative to space will be seen as $v + c$ by an observer moving with velocity v in opposite direction. But when frequency is defined as the nos. of shells per second, for a single shell, there is no meaning of frequency except that mathematically, from c / λ , which is the inverse of time taken in transmission of light effect across one wave length, one can find out as to what the frequency will be when successive shells are continuously emitted. In other words, all the properties of light are inherent in a single shell. When a single shell is taken and an observer “moves” within the shell he finds the wavelength changed. He then calculates frequency with the changed wavelength and reaches the conclusion on constancy of c relative to all observers which, in fact, supports STR but with alterations to STR’s postulates. This is what has been done in my Essay suggesting that a Ray or a Photon do not reveal the fact that reflection of light from a mirror is not instantaneous because light, fundamentally, is of shell nature though wave-like.

Sagnac’s experiment is ideally suited to determine whether the wavelengths of light beams change due to reflection from moving mirrors.

Accelerating motion of an electron relative to fluid space is reacted due to inward acceleration field on electron’s interface (enclosing void) giving an impression of increased mass (apparent mass). Mass does not change with motion up to c relative to space and can be destroyed only in units of electron mass and with only one process of electron annihilation.

References:

Paramahansa Tewari; Universal principles of Space and Matter—A Call for Conceptual Reorientation; 2002, Crest Publishing House, G-2 Ansari Road, Darya ganj, New Delhi-110002.

Paramahansa Tewari; “What is the Electron”, Editor: Voldimir Simulik; Apeiron, Montreal.

More illustrations (see below):

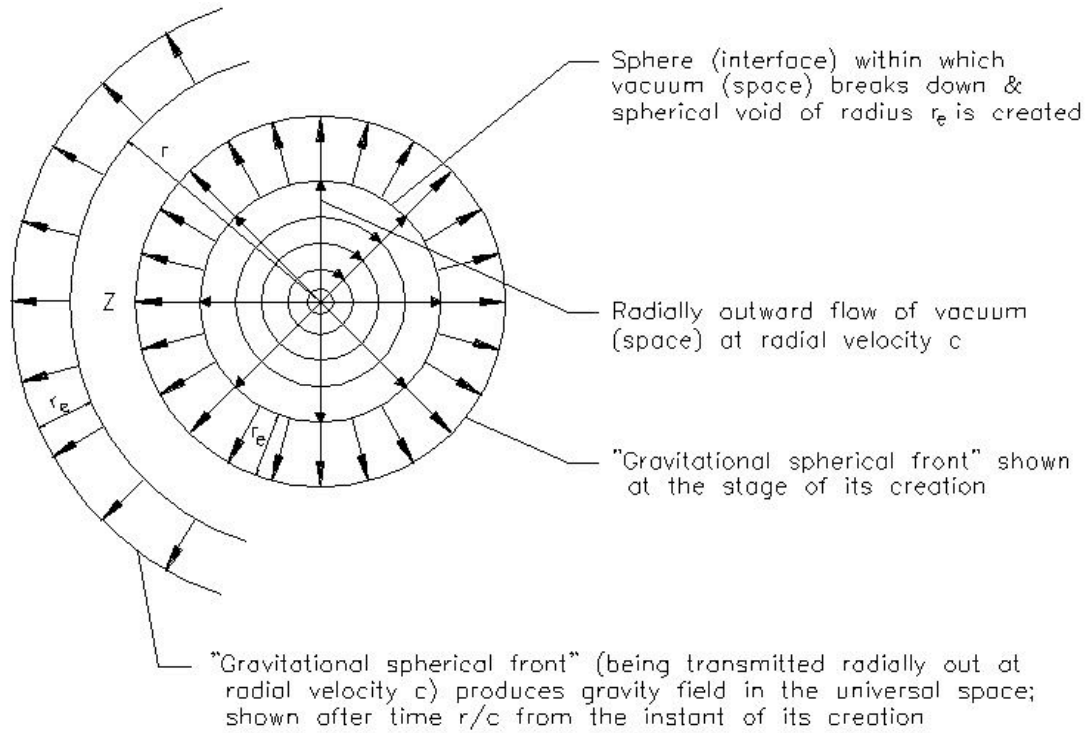


Fig. 4-1a Creation of Electron

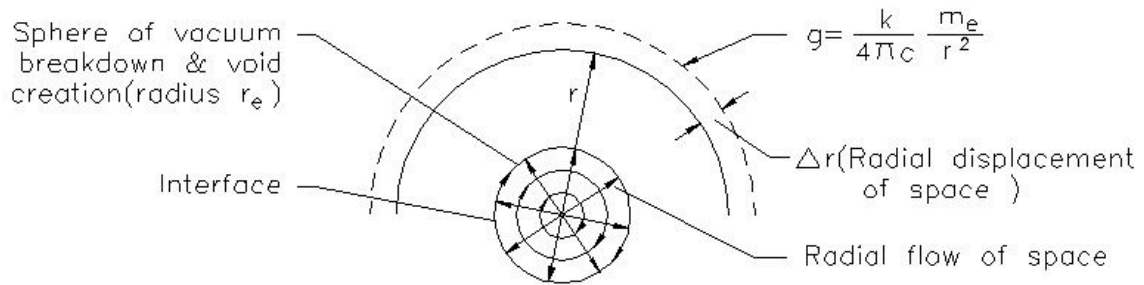
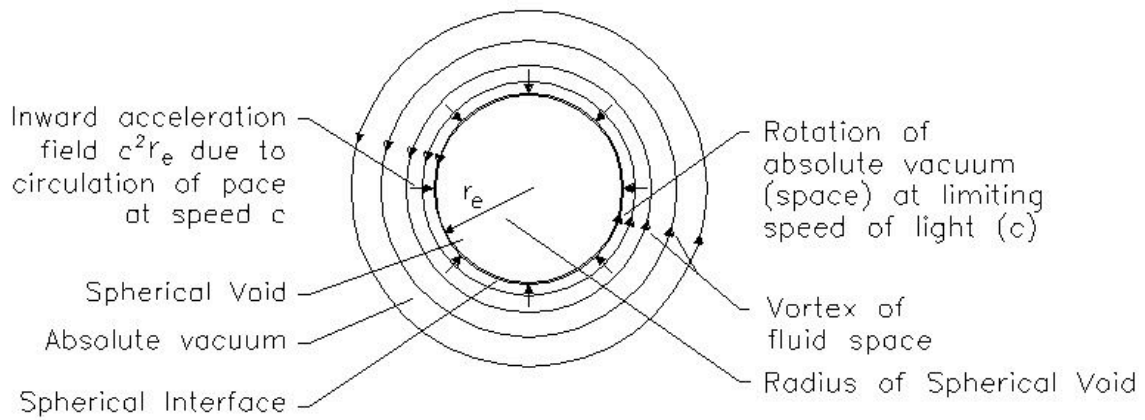


Fig. 4-1b Gravitation



Absolute vacuum possesses non-material properties of incompressibility, zero-viscosity, continuity & mass-lessness of an ideal fluid; fieldless & energyless spherical-void is created due to limiting rotation & breakdown of absolute vacuum.

Fig. 2-3 Vortex in electron structure

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