

## ENTRANCE:

It is known that the Globe is being gradually **slowed down** in speed of spinning and orbital motion as well due to some reason unproven as yet. However the integrated gravitational dynamics of the three party system between **Sun, Earth & Moon**, is much complicated to analyze but the World Science Community of the 21<sup>st</sup> century, needs some realistic reasoning out to explain the phenomenon which causes the below furnished natural phenomena.

- i. Orbit of Moon is gradually being expanded by increasing of the distance from Earth at an annual rate of **4cm**.
- ii. Earth is gradually expanding its orbit from Sun at an annual rate of **15cm**.

As it appears, there are several faulty theorizations being conserved unfiltered in the stock of Global Knowledge, in absence of better **alternative theories** to challenge.

Most naturally the knowledgeable tends to **conserve** the knowledge stock, by protecting them from new challenges. But **Physics** ought not to be a subject like Archeology of History and it must be a **renewable storage**, like a reservoir.

Subject content of physics must therefore be exposed welcomingly for new challenges or unless risk the danger of settling down of such unfiltered theorizations in the society for our kids to **believe**.

Aim of this technical paper is therefore to challenge at first, the existing theorizations in acceptance and then to introduce the alternative theory '**Solar Mass Transplantation**' with a mathematical reasoning out in explaining of the aforesaid natural phenomena.

Also the early warning is raised for the Global Science Community to be acknowledged of the forthcoming due danger, '**Departure of Moon from Earth**', on a sad day noon of blue moon.

## 01. TESTING OF FAMOUS THEORIZATIONS:

### Tidal Theory (which explains acceleration of natural satellites by primary planets):

**How it is explained:-** (readers kind patience is sought to read the below extracted Wikipedia content to know the so far background development of the subject area.)

**Tidal acceleration** is an effect of the **tidal forces** between an orbiting natural satellite, and the primary planet that it orbits. The acceleration causes a gradual recession of a satellite in a **prograde** orbit from the primary, and a corresponding slowdown of the primary's rotation. The process eventually leads to **tidal locking** of the smaller first, and later the larger body. The Earth–Moon system is the best studied case.

The similar process of **tidal deceleration** occurs for satellites that have an orbital period that is shorter than the primary's rotational period, or that orbit in a **retrograde** direction.

The **tidal force** is a secondary effect of the **force of gravity** and is responsible for the **tides**. It arises because the gravitational force exerted by one body on another is not constant across it; the nearest side is attracted more strongly than the farthest side. Thus, the tidal force is differential. Consider the gravitational attraction of the moon on the oceans nearest the moon, the solid Earth and the oceans farthest from the moon. There is a mutual attraction between the moon and the solid earth which can be considered to act on its centre of mass. However, the near oceans are more strongly attracted and, since they are fluid, they approach the moon slightly, causing a high tide. The far oceans are attracted less. The attraction on the far-side oceans could be expected to cause a low tide but since the solid earth is attracted (accelerated) more strongly towards the moon, there is a *relative acceleration* of those waters in the outwards direction. Viewing the Earth as a whole, we see that all its mass experiences a mutual attraction with that of the moon but the near oceans more so than the far oceans, leading to a separation of the two.

In a more general usage in celestial mechanics, the expression 'tidal force' can refer to a situation in which a body or material (for example, tidal water) is mainly under the gravitational influence of a second body (for example, the Earth), but is also perturbed by the gravitational effects of a third body (for example, the Moon). The perturbing force is sometimes in such cases called a tidal force<sup>[1]</sup> (for example, the perturbing force on the Moon): it is the difference between the force exerted by the third body on the second and the force exerted by the third body on the first.<sup>[2]</sup>

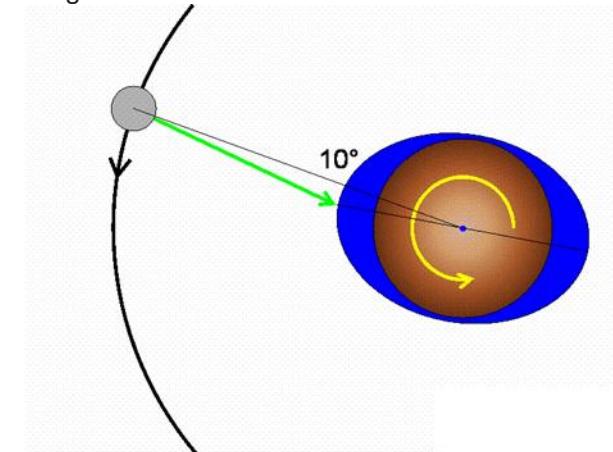
(Thousands gratitude's towards **Wikipedia** for maintaining the biggest database of the conserved knowledge of every subject fields at our arm's length.)

I suppose readers could have got something of the famous 'Tidal Theorization' in the background subject area to explain how planets rotate and orbit around Sun. But to tell you the truth I was completely deserted in it for several years to come out of it ultimately with a better explanation of the phenomena.

### **Facts against of the Tidal Theorization:**

- 1.1 The theory seems to be built being limited to the dynamics of Earth–Moon gravitational system. So defined tidal force seems to be hydrostatic limited only for the planets in gassy or liquid state or otherwise, for the planets on which oceans are available. Then how could **Mars** rotate two moons **Phobos** and **Deimos** about, without having a drop of water on the surface to make tides?

- 1.2 As it is said, near oceans and distant oceans on Earth are subjected to different gravitational drags and the resultant **tidal force** tends to accelerate the satellite in its orbital motion.



Sir Isaac Newton's gravity is defined only in the **radial direction** which connects the concerned two bodies of the **two party gravitational system** and he has not defined any **secondary (lateral) force of gravitation**.

Accordingly far oceans or closer oceans must be subjected only to the radial gravitation of moon with no difference.

But the question then, 'why the main tide is **leading** by some degrees in moon's orbiting direction' as we observe?

We often hear some scholars use nowadays a new term, "**transfer of rotational momentum**" and accordingly Earth's rotational momentum is said to be transferred to make Moon orbit round in the same direction.

Sir Isaac Newton has not made any reference of '**Transfer of angular momentum**' in to distant objects.

- 1.3 As it is expressed, orbital period of a satellite could decide **tidal acceleration** or **tidal deceleration**.

But what is the scientific basis behind the theory? Will the **leading tide** become a **lagging tide** if Moon is over accelerated to rise from the west like Phobos?

## 1.4 Tidal Lock or **Gravity Lock**?

The phenomenon of keeping the same face always towards the planet while orbiting by any artificial or natural satellite is named as a 'tidal lock' in the background art. But it is more suitable to address the phenomenon as '**Gravity Lock**' because the face is not necessary to be locked unless the center of gravity of the satellite is shifted towards the planet in that direction.

## 1.5 Accelerating or Decelerating?

Suppose Moon is driven in its orbit due to so called tidal force of Earth. Then speed of Moon should be **decreased** instead of accelerating because Earth is **slowing down** in reality. (a leap second is added in this very year of 2015 also).

Then Moon should reduce speed and get closer to Earth instead of leaving away, due to decrement of its centrifugal force and isn't that the tidal theorization contradictory?

*\*\*\*Theorizations could be accepted or rejected from time to time by the society but Nature Principles of the Universe behind the phenomena ever exist unchanged. Theories should not therefore be conserved in Knowledge Departments but essentially be exposed for challenges for improvements sake. \*\*\**

## 02. ALTERNATIVE NEW THEORIES:

### 2.1 Theory of the Resistive Globe/2015

*The Globe is slowing down in its orbital motion and spinning speed as well due to the resistance by the sky raised building columns of mega cities.*

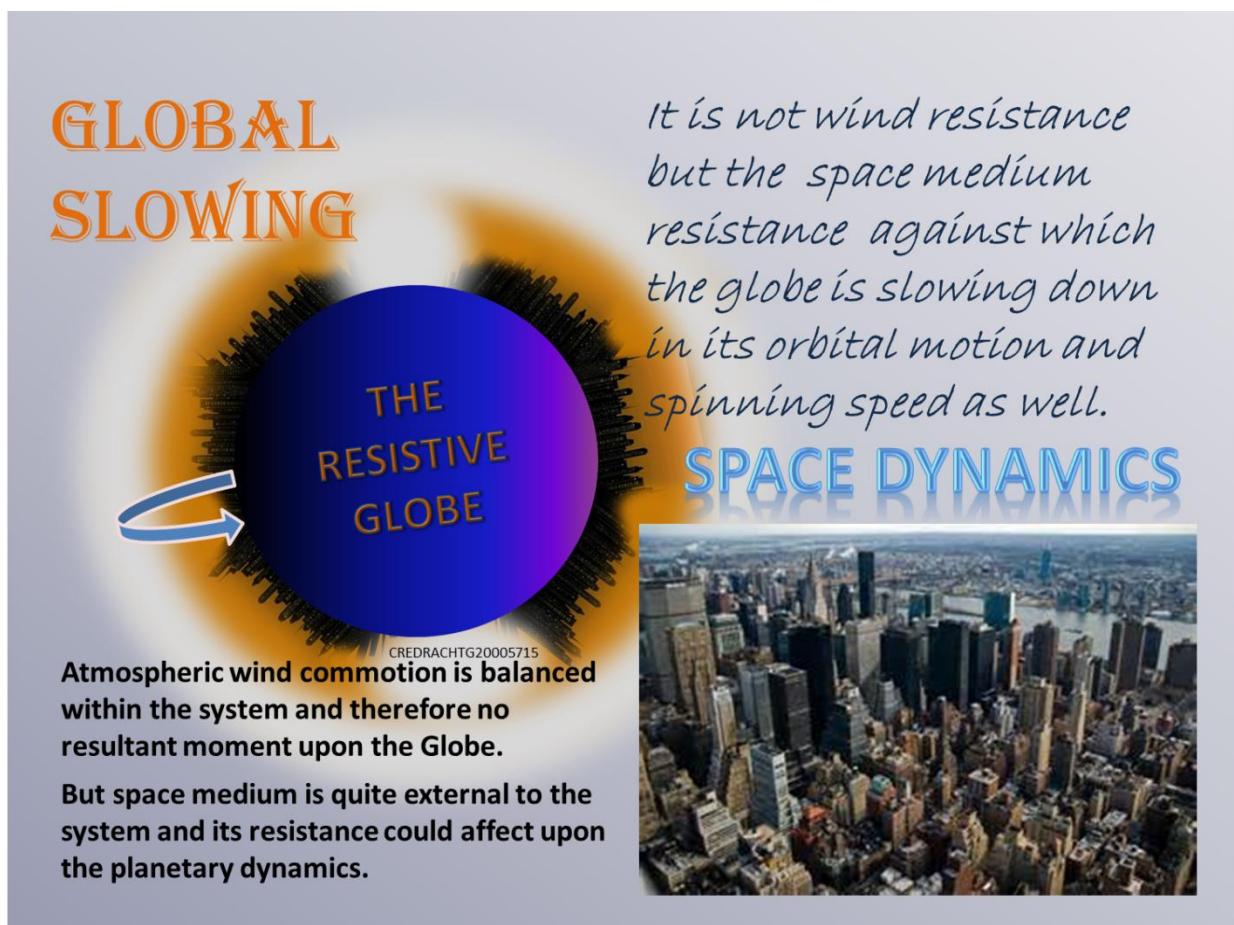


FIGURE-01

## 2.11 Is wind the culprit?

It is not wind resistance which affects upon rotational dynamics of the Globe. Wind is just an internal thing of which the forces are well balanced within the Globe.



## 2.12 Resistive Motion Against the Space Medium

What is there if we could remove air from the atmosphere? It is neither nothing nor vacuum but a medium of matter. Scientists of the 21<sup>st</sup> century have got to accept the existence of the '**Space Medium**' at first and thence laboratory experiments have to be developed to analyze **density** and **pressure** of it.

## 2.13 The 1<sup>st</sup> Step Forward for the Space Parameters/ 2009

When I found that the experimentation could not be affordable for me, I have deduced the parameters of the space medium **mathematically** and published in the experimental monograph '**Space Dynamics-V1**' by 2009. The deduced parameters are just furnished bellow for a quick overview.

1. **Density of the Space Medium:-** .....  $\rho_0 = 4.773 \times 10^{-4} \text{ g/cm}^3$

Space medium density is varied within a Galaxy and this figure is relevant to the central region where the **Fundamental Cosmic Reaction** of the phase transformation of **Dark Matter** in to **Hydrogen** occurs –( [http://www.world-mysteries.com/SpaceDynamics\\_V1.pdf](http://www.world-mysteries.com/SpaceDynamics_V1.pdf) )

Mean density of our atmosphere (just to compare):- .....  $1.2 \times 10^{-3} \text{ g/cm}^3$

2. **Pressure of the Space Medium:-** .....  $P_0 = 2.145 \times 10^{17} \text{ dynes/cm}^2$

Above figure is also relevant only to the central region of an expanding Galaxy where the fundamental cosmic reaction takes place.

Our atmospheric pressure (just to compare):-.....  $1.01 \times 10^6 \text{ dynes/cm}^2$

## 2.14 The 2<sup>nd</sup> Step Forward for the Space Parameters/ 2013

Without receiving any response from the world, I have continued my silent exploration further to evaluate the local parameters of the space medium relevant to our Solar System. The deduction was based on orbital motion of planets against of the **space resistance**, being based on the new linkage theory of Gravity- '**Theory of Gravity Deviation'**/Space Dynamics-V2/2009.

1. Density of Space Medium at Earth:-.....  $\rho_0 = 1.386 \times 10^{-4} \text{ g/cm}^3$
2. Pressure of Space Medium at Earth:-.....  $6.228 \times 10^{16} \text{ dynes/cm}^2$

Pressure and density as well of the space medium is varied such that it is decreasing gradually away from the central region of a Galaxy. Also it is gradually decreased with the increasing distance from Sun in a solar system. (It is mathematically derived in the monograph '**Dynamic Stability in Orbital Motion of Planets**'/ Space Dynamics-V6/2013.)

The reader may question what is the use of finding of the space medium parameters?

The medium resistance is very important to know for designing of space crafts and artificial satellites because otherwise, the expected efficiency could not be achieved by designers. Besides that, satellites could deviate from the targeted orbits unexpectedly due to **space resistance** and **orbital motive force** induced by the spinning planet. In addition, prediction of asteroid motion and planetary dynamics could be done more precisely if the space resistance is considered. Therefore body shape and body materials as well of space crafts have to be designed so that resistance against space medium is minimal.

## 2.15 Space Resistance against Earth:

- Do you know our Globe is moving across the free space in the orbit around Sun at a speed of **29.8 km per second**, against the medium resistance? It is nearly one million km per hour and what a big speed?
- Do you know space medium resistance is increased due to increment of **surface roughness** of the Globe?
- Do you know the high rise buildings of one megacity produces a bigger area of **frictional surfaces** than that the mountain Himalaya does?

## 2.16 Resistance for moving Globes in the Space

Resistive force upon any planet against space medium resistance in its orbital motion is derived by the expression;

$$\diamond R_p = \eta \rho_0 V^2 (0.596A)$$

Where;

**Medium Resistance** against motion: -  $R_p$

**Contact Constant** of the surface materials  $\eta = (\rho_o / \rho)$ .

$\rho_o$ —density of free space medium &  $\rho$  - density of the surface material

$V$  —velocity of the planet

$A$ — cross sectional area of the planet.

For details of derivation of the above equation please refer the experimental monograph, '**Dynamic Stability in Orbital Motion of Planets'**/ Space Dynamics-V6/2013.

(<http://www.cyrilhtgamage.com/index/index.php/publication-space-dynamic/87-space-dynamic/152-dynamic-stability-in-orbital-motion-of-planets>)

Then readers must be interested just to see, what the resistive force against Earth, applied by the free space medium;

Resistive force upon Earth against motion:-  $R_p = \eta \rho_o V^2 (0.596A)$

Density of Earth  $\rho$  = mass/volume = 5.52 g/cm<sup>3</sup>

Density of space medium  $\rho_o$  = 1.386 x 10<sup>-4</sup> g/cm<sup>3</sup>

**Contact Constant** of surface materials  $\eta = (\rho_o / \rho) = 0.25 \times 10^{-4}$

Cross sectional area of the Globe  $A = \pi(6.371 \times 10^8 \text{ cm})^2 = 1.275 \times 10^{18} \text{ cm}^2$

Velocity of Earth  $V = 2.982 \times 10^6 \text{ cm/s}$

Therefore  $R_p = (0.25 \times 10^{-4})(1.386 \times 10^{-4} \text{ g/cm}^3)(2.982 \times 10^6 \text{ cm/s})^2(0.596 \times 1.275 \times 10^{18} \text{ cm}^2)$   
 $\underline{\underline{= 2.34 \times 10^{22} \text{ dynes}}}$

That is the size of the resistance against orbital motion for Earth. Then readers may question 'why don't then the Globe stop? Resistance is balanced by the 'Orbital Motive Force'.

## 2.17 Orbital Motive Force

'Theory of Gravity Deviation' –Space Dynamics-V2/2009 explains how solar gravitation is deviated due to spinning of Sun and how a gravitational force component is laterally applied upon planets in the solar system to move them in the same direction of Sun's spinning.

Angle of Solar Gravity Deviation ( $3.81 \times 10^{-4}$ )<sup>0</sup> is a common thing for all the planets, comets or asteroids in the Solar System and simply gravitational force multiplied by ' $\sin(3.81 \times 10^{-4})$ ' gives the size of the Orbital Motive Force. Let's calculate it for our Globe.

Solar gravity at Earth = 0.592 cm/s<sup>2</sup>

Gravitational force towards Sun= (mass of Earth) x (solar gravity)

$$=(5.98 \times 10^{27} \text{ g}) \times (0.592 \text{ cm/s}^2) = 3.54 \times 10^{27} \text{ dynes.}$$

Therefore Orbital Motive Force on Earth=  $(3.54 \times 10^{27} \text{ dynes}) \times \sin(3.81 \times 10^{-4})$

$$F_m = 2.35 \times 10^{22} \text{ dynes}$$

Earth exhibits a **uniform orbital motion** as a result of the balance of above two forces  $F_m$  and  $R_p$ . Any increment of **Resistance** tends to slow down its speed in orbital motion and spinning as well.

## 2.18 The Logic behind Global Slowing:

*Suppose two runners are running together in adjacent tracks while they are tied together by a rubber band. What will happen when one runner is slowing down for some reason? The rubber band is elongated.*

*Earth-Moon couple too is keeping a run in the orbital track around Sun while Moon has tied with Earth by the gravitational bond. Earth is slowing due to increased resistance and then what will happen to Moon? The distance between Earth and Moon should be increased.*

## 2.2 Conservation of Kinetic Energy in Rotary Dynamics:

This is not a new theory but a shallow level application of Albert Einstein's theory, 'Conservation of Energy'.

*Any dynamic system tends to conserve its Kinetic Energy by adjusting its dynamics within the system.* (example: The rotating man with weights in stretched hands will accelerate rotation with folded arms)

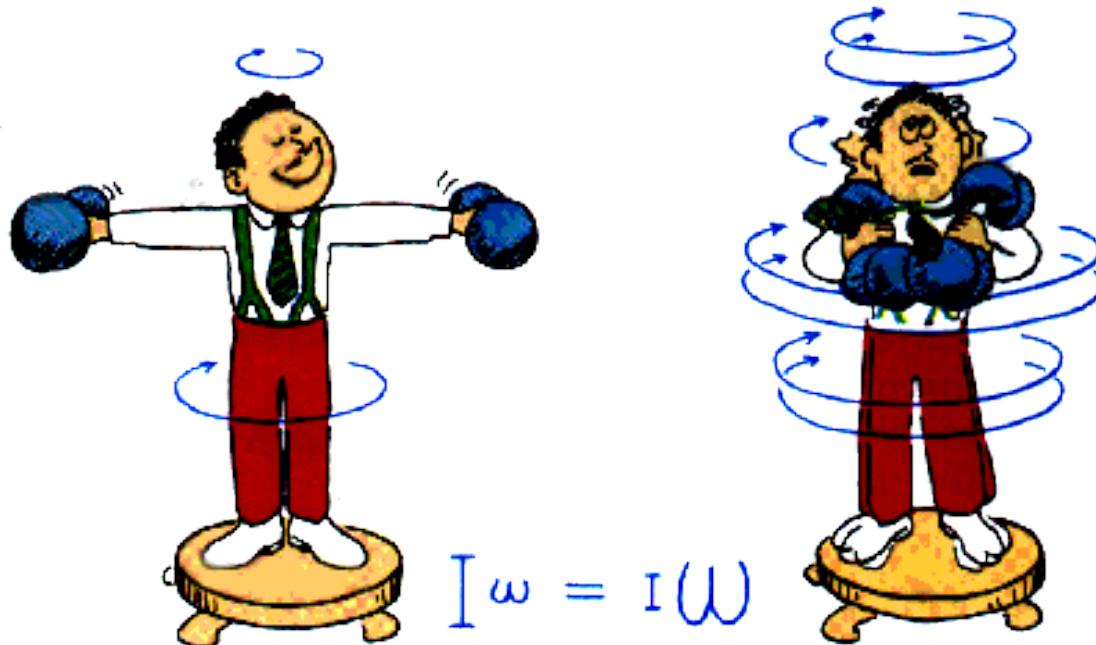


FIGURE-02(a free download picture from the Google space)

## **Special note:**

Readers should comprehend that something is wrong with the presentation in above picture and what is it? The equation in the picture is wrong. It is the equation which defines the famous theory of “**Conservation of Angular Momentum**” in the dynamic systems.

Then readers may question;

**Q: Are you going to challenge the world famous and world accepted theory ‘Conservation of Angular Momentum’?**

A: Yes I suspected the famous theory from my childhood and argued with my teachers, university lecturers and famous physicists in the subject field (still I have written notes of such correspondences). But nobody could give a satisfactory answer for my questioning against of the famous theory. Ultimately I came to conclude that even scholarly people tend to **believe** some principles without testing because that were in the **acceptance**.

I dare say that Newton’s theory of “**Conservation of Angular Momentum**” is contradictory and Einstein’s theory of “**Conservation of Energy**” is applicable for any rotary dynamics in the limited consideration of kinetic energy of the systems.

**Q: What is wrong with the theory and with the equation  $I\omega = i\Omega$ ?**

A: The equation [  $I\omega = i\Omega$  ] must be corrected as [  $\frac{1}{2} I\omega^2 = \frac{1}{2} i\Omega^2$  ] and then only it is balanced.

**Q: What’s the basis of that change?**

A: It is nothing else but ‘Einstein’s principle of ‘**Conservation of Energy**’ to be applied regarding the dynamic change.

**Q: But you know Einstein’s theory is of the ultimate energy content in matter  $E = mc^2$  and not for such a low level consideration of rotary dynamics such as kinetic energy, is it?**

A: Yes but I never wanted to take Einstein’s ultimate energy stock out from the matter but instead, I have considered the total energy stock of the rotary system including kinetic energy. Then I got [  $\frac{1}{2} I\omega^2 = \frac{1}{2} i\Omega^2$  ] by balancing kinetic energy at both stages of the rotary dynamics, resulting  $I\omega^2 = i\Omega^2$ .

## **2.21 Facts against of the theory of “Conservation of Angular Momentum”:**

**Q: Can you suggest a practical to prove that angular momentum is not conserved?**

A: Suppose your kid is rotating a glass ball around his finger, tied by a string as shown in the figure-03. Once the string is gone accidentally, the ball is projected out along a **straight line** directly across your face. Isn’t that so?

Q: Yes that is so, but then?

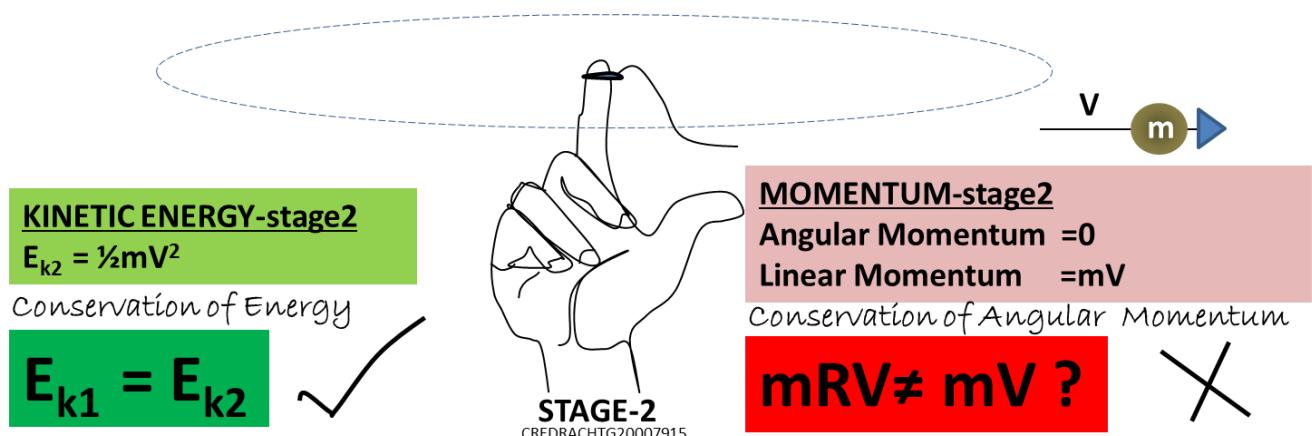
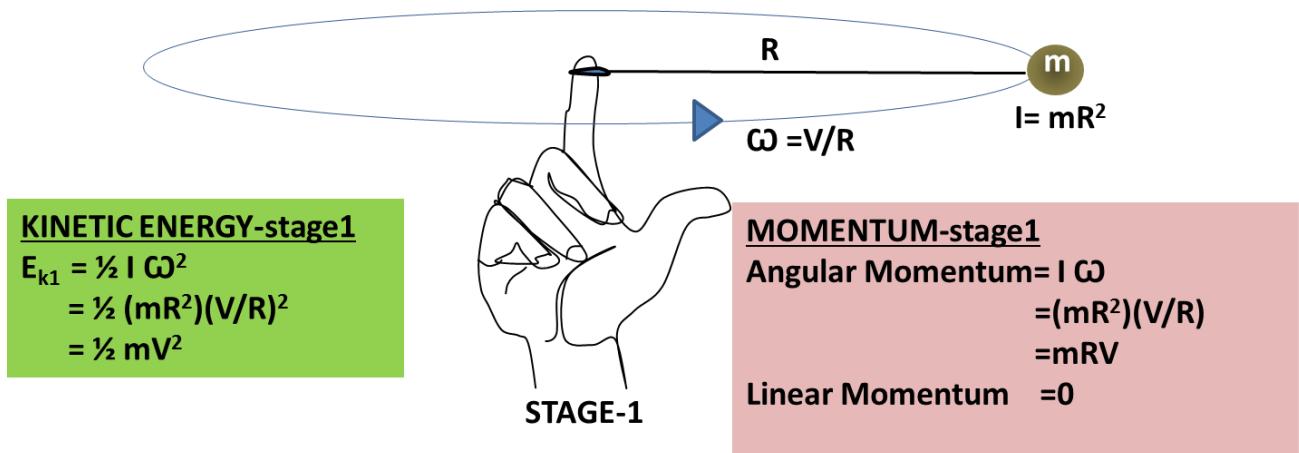
A: At first the system possessed some angular momentum ' $I\omega$ ' as you would agree with me.

Q: I agree.

A: But tell me what has happened to that amount of angular momentum just after the string was broken?

Q: It is converted immediately in to linear momentum and however the momentum in the sense is conserved you know?

A: Ah!!.. is that the way how angular momentum is conserved? What is the meaning of the word '**conservation**' if the **amount** and **direction** of the initial momentum is changed instantly after?



**FIGURE-03** (Is Angular Momentum conserved in case when the string is broken?)

Q: Well, then you dare say angular momentum cannot be conserved but Energy can be conserved

A: Exactly. Momentum is just a measure of **mass mobility** which indicates only the current phase of dynamics. Therefore it is not a suitable physical parameter to be conserved.

Can you conserve a Force? Can you conserve Gravity? Similarly you cannot conserve a Momentum either angular or linear.

Q: You mean 'momentum' is not worth enough to define rotary dynamics?

A: I don't say so. Momentum can be **balanced** in two party rotary dynamics. But it cannot be conserved.

Q: Can you give an example?

A: Pluto and Charon is an **independent couple** (though recently expelled out unfortunately from the planetary family) of **mutual gravitation** living far in the solar system. Their momentums are well balanced in rotary dynamics such as;

**Angular momentum of Charon about Pluto= Angular momentum of Pluto about its own spinning axis.**

Q: Why did you go so far to pick up examples while Earth-Moon couple is so closer to us?

A: Yes, but the couple is not **independent** and do you know that resultant force on Moon towards Sun is greater than that towards Earth at mid noon of every blue moon day? (Please refer to "**Theory of Gravity Momentum pdf**/2014 in Google or Yahoo search engines for more of the argument)

Q: I have dragged you far off out of your topic and anyway, can you explain why Moon is leaving us?

A: Earth Moon couple is not independent at all due to strong influence of Sun and therefore angular momentums cannot be balanced. But in consideration of **kinetic energy conservation** of the system, we can observe how Moon is leaving from Earth.

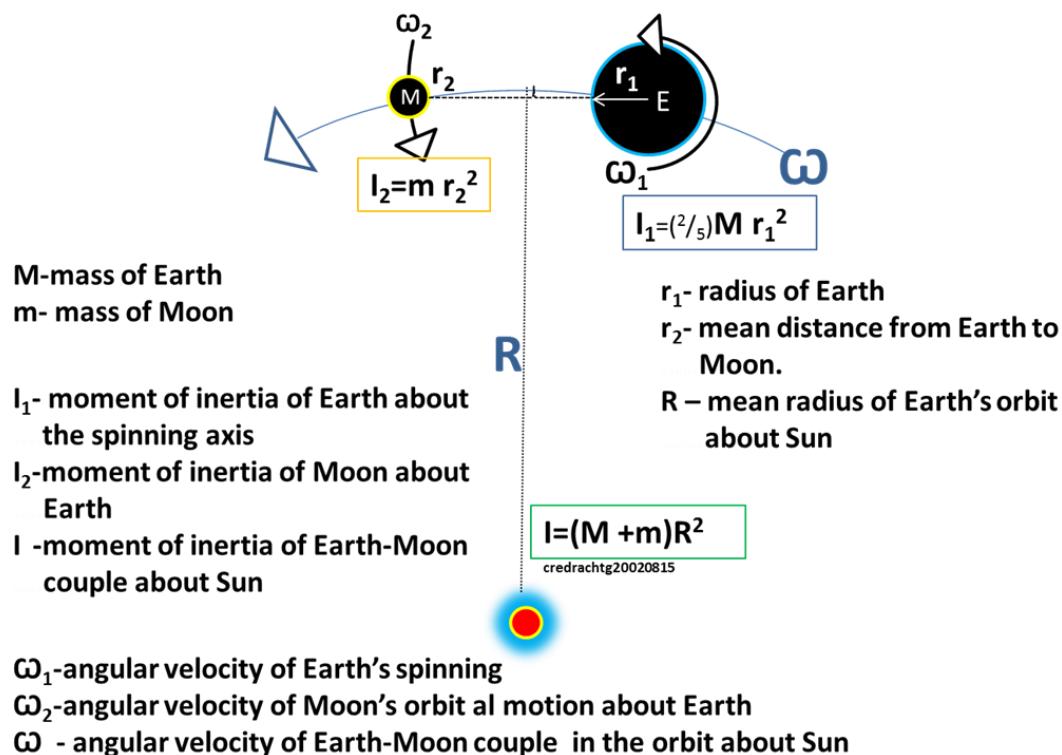


FIGURE-04 (Three party dynamics)

**Albert Einstein's** principle of Energy Conservation can also be applied for **system dynamics** to describe changes. Let's deduce what happens to the Earth-Moon system relative to Sun, when Earth surface has become more resistive, with sky-scraping building columns of megacities;

**Kinetic energy of the system in the orbit around Sun = (Kinetic energy of Earth) + (Kinetic energy of Moon).**

$$[\frac{1}{2} I \omega^2] = [\frac{1}{2}(MR^2)\omega^2 + \frac{1}{5}(Mr_1^2)\omega_1^2] + [\frac{1}{2}(mR^2)\omega^2 + [\frac{1}{2}(mr_2^2)\omega_2^2]]$$

What will happen when the Earth Dynamics in blue color is dropped due to high resistance against space medium?

Then Moon dynamics in yellow color should be adjusted to balance the system kinetic energy equation. But obviously its orbital motion about Sun could not be changed. Therefore Moon adjusts its dynamics,  $[\frac{1}{2}(mr_2^2)\omega_2^2]$ , by increasing  $r_2$ , the distance from Earth as shown in the figure-04.

**Q:** Your deduction made upon resistive motion of Earth in the orbit around Sun. But how could your column resistance effect upon spinning of Earth and 'Global Slowing'?

**A:** Then we have to remove Sun from the system and conserve the kinetic Energy within the rest of the system.

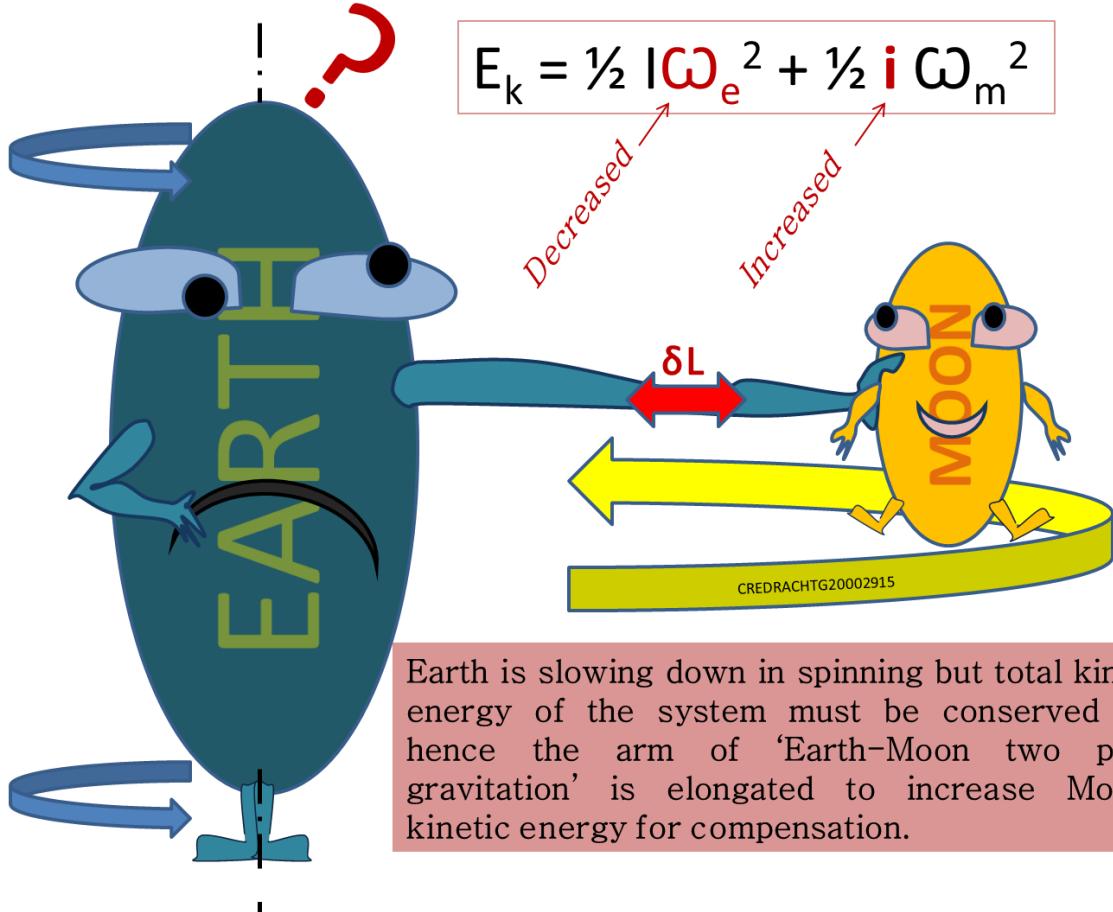
**[Kinetic energy of the Earth-Moon couple]= [Kinetic energy of Earth] + [Kinetic energy of Moon].**

$$E_k = \frac{1}{2} I \omega_e^2 + \frac{1}{2} i \omega_m^2$$

When Earth dynamics is dropped due to slowing, Moon dynamics should be developed by increasing its 'moment of inertia'(i) with increased distance from Earth.

**Q:** Well, then you say Moon is departing to compensate the energy unbalance of the system. But who is there in the free space to draw Moon from Earth? Who is the real actor? Or what is the force?

## CONSERVATION OF KINETIC ENERGY IN ROTARY SYSTEMS



Earth is slowing down in spinning but total kinetic energy of the system must be conserved and hence the arm of 'Earth-Moon two party gravitation' is elongated to increase Moon's kinetic energy for compensation.

**FIGURE-05** (Picture to explain Why Moon is departing from Earth)

A: It is a good question from you and there should be a force realistically to push Moon from Earth and let's find it out.

Either satellite or a Planet settles in its orbit by balance of forces mainly in two perpendicular directions such as;

1. Radial direction of the two party mutual gravitation
2. Lateral direction along the path of the orbit

Sir Isaac Newton has explicitly explained in the 17<sup>th</sup> century, how gravitational drag and centrifugal force are balanced in the radial direction of orbital dynamics.

Q: That is understood easily but the other?

A: Yes... but balance in the lateral direction is difficult for me to explain because world has not yet accepted that the free space is a medium of resistance for motion.

Q: Suppose it is resistive for motion however, and then what is the force in against of the resistance to push the object forward along the orbit?

A: Well, It is not a push but really a pull applied by the perpendicular force component of **deviated gravity** or the source, which is named as '**Orbital Motive Force**'. Gravitational field is a bit deviated when the gravity source is spinning. (Please refer to "**Theory of Gravity Deviation pdf**"/**2009** in any search engine)

Q: How do you prove that there is a so called force to pull things forward in orbital motion?

A: All the planets with satellites, asteroids and dusty belts etc. are orbiting as a whole in the same direction of Sun's spinning. And why not even a single planet does orbit in the other way round? If that logic is not enough for you, I can suggest you a small practical to observe the 'Orbital Motive Force'.

Q: What is that practical?

A: Ask **NASA** to launch two satellites so that one is to orbit in the same direction of Earth's spinning and the other in the opposite direction. You would observe that the latter would come down in to lower orbits gradually with time to hit upon the Earth ultimately.

Q: Why is that?

A: Because the orbital motive force (deviated Earth gravity component) is applied to support one satellite and to buffer the other in motion.

Q: It is rather a costly practical anyway and how long I have to wait to observe the difference?

A: Then I'll suggest an easy practical for you. It is just an observation.

Q: What is then to observe?

A: You have to sit in your balcony all over the night by facing the North sky and ultimately you would notice that the falling meteorites are not coming sharp vertical.

Q: Yes, perhaps but what does it matter?

A: You have to note the inclination of them.

Q: What a madness of it?

A: Well, you would observe that meteorites are inclined slightly as if to come from the West before falling.

Q: What does it indicate?

A: It indicates that Earth's deviated gravitational field has tried to make them rotate round in the same direction of its spinning. That is the influence of the force component '**deviated gravity**' applied upon any object in the gravitational field of the spinning Earth. Moon too is pulled forward by the same force component of deviated Earth's gravity along the orbit against space resistance.

Q: Anyway, let the forces are balanced in that manner in the general orbital motion. But still you have not explained how Moon is being departed from Earth? Who is doing that and how?

A: My dear Sir, Some phenomena in this world take place as a result of two or more reasons. Sometimes the mechanism behind is much complicated to find when the **result is a resultant** of different causes.

However I'll answer your questions in this technical paper itself but still I have to bring forth a different principle before explaining of the mechanism behind; 1). How Earth is departing from Sun and 2).How moon is departing from Earth.

## 2.3 Theory of Solar Mass Transplantation/2015:

*Productive Planets in the solar system are growing in size and mass with time by absorption of weakly charged particles from solar wind.*

### Definitions:

**Productive Planets**:- Spinning planets having a strong magnetic field and one or more natural satellites in possession are defined as 'Productive Planets'.

**Solar Wind**:- Solar wind is supposed to be a flux which is consisted of electrons continuously projected out from Sun.

**Weakly charged particles**:- Light rays are weakened by travelling far in the space. Similarly electrons in the solar wind too are supposed to be weakened in charge by travelling far.

Q: That is all imaginations upon assumptions and suppositions?

A: Yes but nothing new for the world would come unless imaginations are there to suggest new angles for observations, researches and experimentations.

Q: Well, then how does Earth grow?

A: Productive planets are spinning about the axis of magnetic poles as you observe. The **geomagnetic motor** needs a current to run. Solar wind provides the flux of electrons as a current, being recharged at the ionosphere. Electrons are of mass and then Earth is gradually grown in mass.

Q: A current usually flows between two terminals. What are the terminals of your imagination?

A: It is very linear thinking of you which always requires two destinations. Anode to cathode, start to end, birth to death, origin to destruction .....

Q: No Philosophy but how does a current flow without two terminals?

A: Suppose the center of Earth beyond the melted magma sphere is the positively charged terminal and solar wind above ionosphere is the negatively charged terminal. Current flows between two spheres.

Q: But the path is not described well for a current to flow and no potential difference is observed.

A: It is not always through a current cabal as you think but generally how many of lightening strokes received by Earth per an hour? And do you know that, electrons are passed through humid air even without any lightening?

Humid atmosphere and wet soil both play the role of **weak conductors** to bring the current in to the Globe.

Q: Well but you still did not explain how earth is grown by mass?

A: My dear Sir, receiving electrons from the space means receiving mass from the outer space because electrons are of mass. Mass of a single electron is  $9.108 \times 10^{-28}$  g if you can go to your school days.

Q: Logic is correct but what is the function of absorbed electrons inside of Earth?

A: Suppose lava (magma in melted form) needs electrons to produce all other elements in the periodic table gradually in decaying?

Q: Including water and oxygen?

A: Yes, water ( $H_2O$ ) vapor and Carbon Dioxide( $CO_2$ ) are direct volatiles issued with lava but Oxygen is a late derivative in volcanic chemistry.

Q: Well, by the way, do you have any idea of how lava is formed in Earth?

A: Geologists will answer your question conventionally such that, rocks are melted to form lava due to high pressure in Earth. That is also true but there is a 'fundamental cosmic reaction (FCR)' to explain how tender lava is formed by Helium with absorption of electrons which take places in forming worlds. (please refer to 'Star Mechanism'-Space Dynamics- pdf/2010' )

Q: Your chemistry is quite different to what we have learnt. Anyway, what is there to prove Earth is grown in mass?

A: My dear Sir, It is general logics and I can't help feeling sometimes that, if clever Logicians and Criminal Investigators are welcomed in to the fields of ours, they could have done better than Scientists do, who always need laboratories and software modeling facilities to conclude even a simple thing.

No Sir, you just look at the land shape of continent peripheral topography just to observe how easy to contact the continents leaving no gaps in between. Proto earth must most probably be the small globe as observed in the picture- 06.

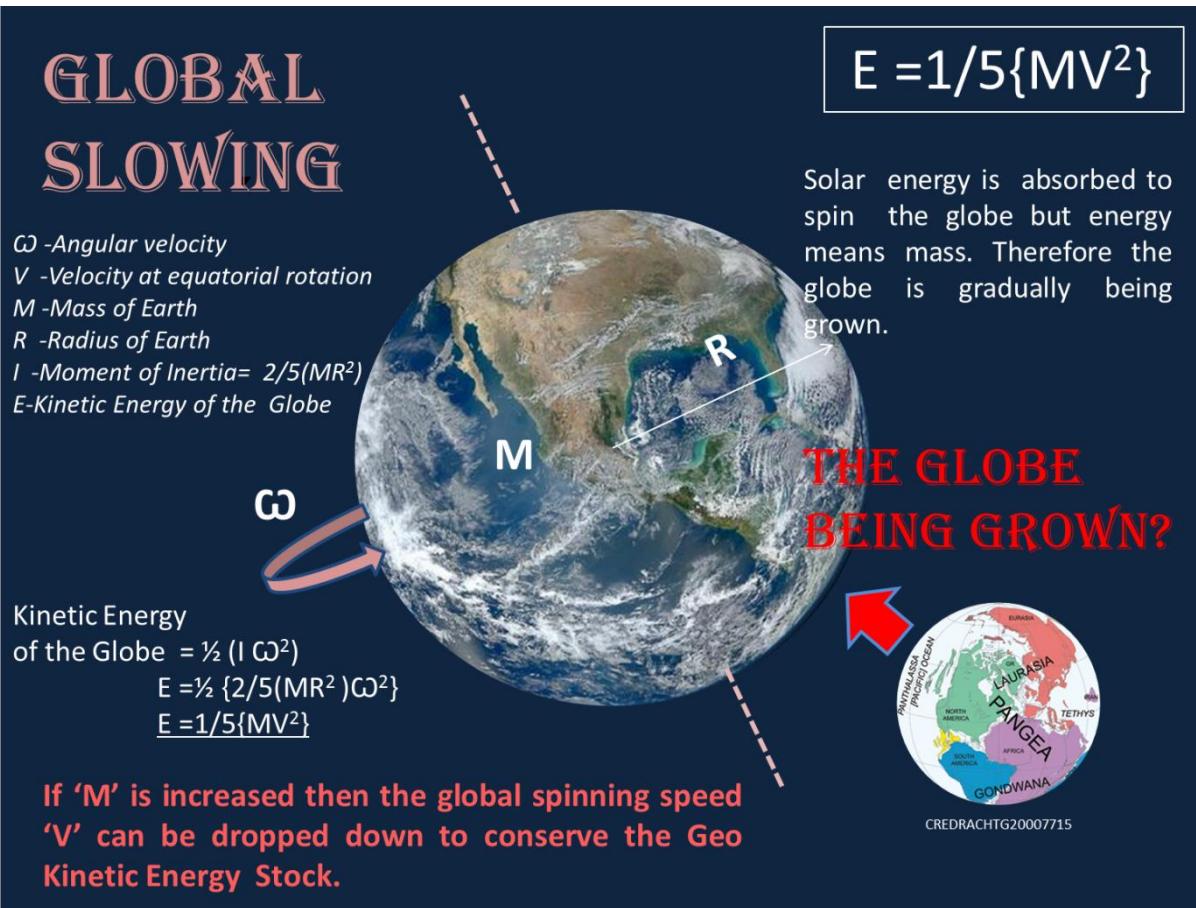


FIGURE-07

Q: Well, but still there is a gap that you cannot fill by contacting continents at tectonic plates.

A: Yes there is a big gap to be filled just at where the current Pacific Ocean is situated.

Q: How do you fill the gap then?

A: I cannot fill the gap but Moon can fill it precisely. Have you ever thought how that birthmark like craters could occur on so beautiful face of Moon?

Q: That is due to fall of asteroids.

A: You can observe plenty of such circular marks could have made by asteroids on the other side of Moon. But even a child would agree upon the logic that falling asteroids could not draw such a beautiful hare on the looking face of Moon. (Please refer to '**Origin of Moon by the Earth Bang**'/2010 for more of the deduction)

Q: Then how that hare birth mark was printed upon looking face of Moon?

A: It is how the proto pacific crust of Earth looks when contracted by 'Self Gravity' after being projected out far from the proto Earth by a bang occurred at a 'Geo Magnetic Reversal'.

Q: Well then, suppose Earth is being grown somehow but how could it affect upon spinning speed?

A: Kinetic energy of Earth is  $\frac{1}{2} M V^2$  as it is derived in the figure-07 where 'M' is mass of Earth and 'V' is the velocity at equatorial rotation. Now suppose you increase mass of Earth somehow but stock of kinetic energy ever gained by Earth is conserved by decreasing rotating speed 'V'.

**Q:** However it has been observed by Scientists that the Globe is been slowing down through millions of years. Therefore 'Global Slowing' is not a modern issue like 'Global Warming'. So you have to withdraw your 'Resistive Globe' concept as described by the figure-01.

A: Some happenings could be resulted by effect of several causes. So I don't withdraw the 'Resistive Globe theory' for there is a good basis behind. I don't think buildings in any alien cities in the space, are arranged in this ugly column pattern.

**Q:** But your other reasoning, 'Solar mass transplantation in Earth' is more acceptable for the happening of global slowing. By the way, how do you explain the gradual departing of Earth from Sun by a distance of approximately 15cm per year?

A: As shown in the figure-07, Radial dynamics of Earth in the orbit around Sun is explained as the balance of Centrifugal force and direct Solar Gravity.

Let's consider radial stability of Earth in the orbit at first:

No difference takes place in above equation, if mass of Earth ' $M_e$ ' is increased or decreased.

Let's consider then lateral (orbital) stability in the dynamics:

You would observe that Right hand side of the 2<sup>nd</sup> equation is increased if Mass of Earth ' $M_e$ ' increases. Then what happens? Earth tends to accelerate in its orbital motion because orbital motive force is bigger than the resistance 'R'. As a result, 'V' in equation-1 increases. **Then the centrifugal force of Earth,**

$M_e (v^2/d)$  is increased to move the globe a bit away from Sun.

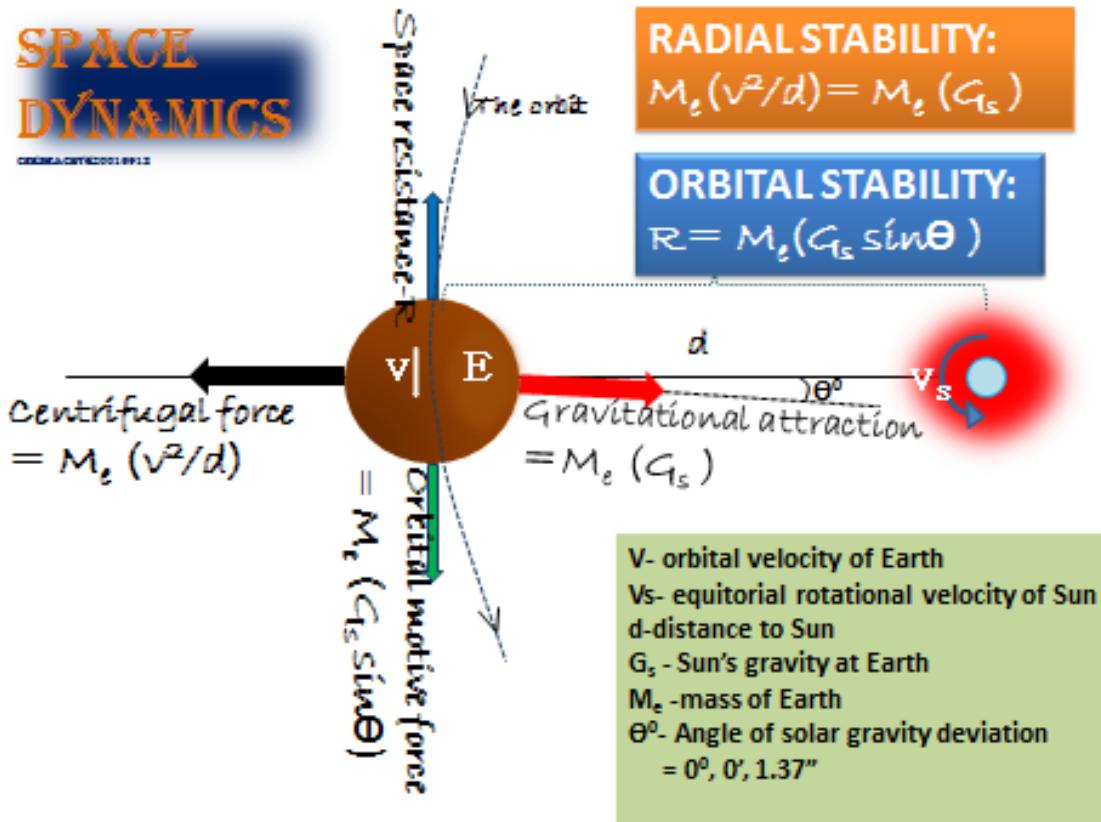


FIGURE-07

Q: Well, You mentioned Moon is also departing by 4cm per year from Earth. Can you explain it too by the same theory? When Earth is grown, gravitational force too should increase and Moon should come more close instead of departing. Isn't that contradictory?

A: Yes you are correct, it is just 'radial stability' which explains how Moon should come closer if Earth is grown in mass. But you know the Earth-Moon couple is not independent at all in dynamics. Sun is the more power full third party who interferes badly and as a proof, gravity by Sun at Moon = 0.592 cm/s<sup>2</sup> which is bigger than gravity by Earth at Moon=0.269 cm/s<sup>2</sup>. Then my question, 'who is the **Big Boss of Moon?**' Earth or Sun?

Q: Sun is the big boss.

A: Yes, then it is more right full to say '**Moon is orbiting Sun while just moving round Earth**'.

Q: Yes perhaps, but my question how Moon could increase the distance to Earth? and what is the mechanism behind?

## SPACE DYNAMICS

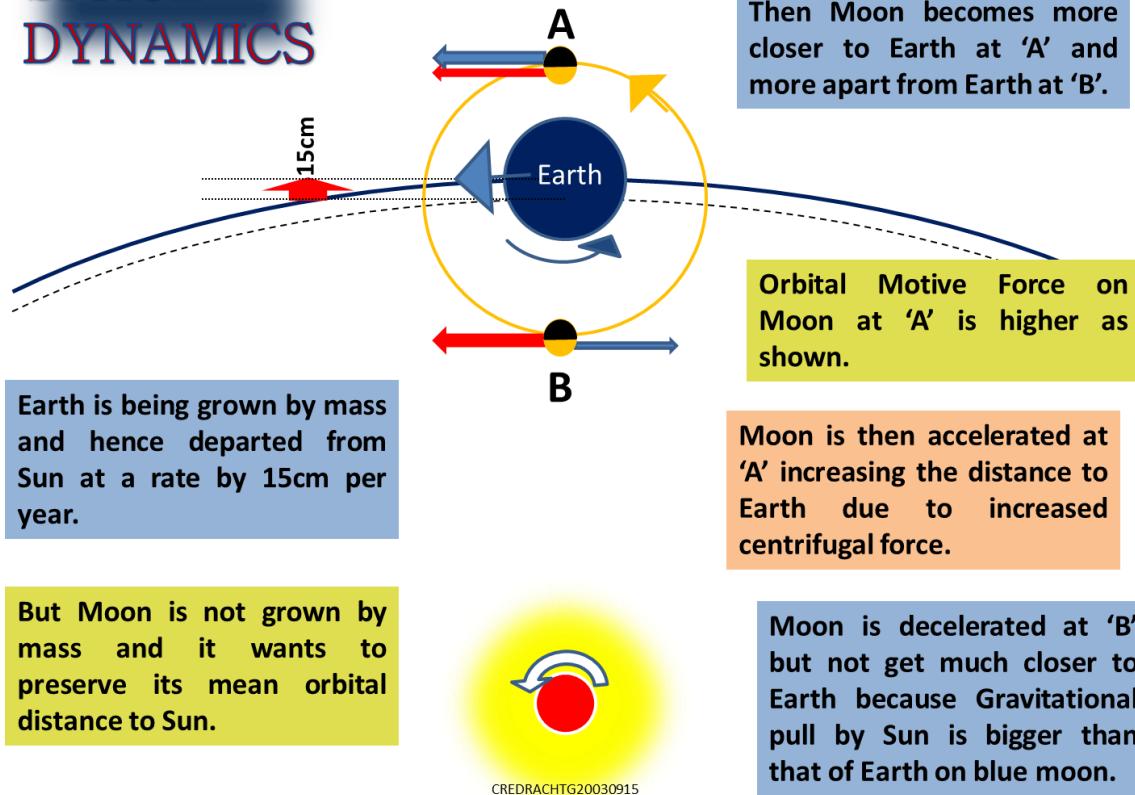


FIGURE-08

A: **Theory of Solar Mass Transplantation** proves how Earth is being grown in mass and size. Then the phenomenon of how Earth is being departed from Sun at a rate of 15cm per year is explained by Einstein's universal principle of '**Conservation of Energy**' ( by the limited concern to kinetic energy only).

Let's see at the figure-08 to observe that Moon faces a big problem of **whether to leave Earth or Sun**.

At its dynamic stage on full Moon(at 'A'), both orbital motive forces from the spinning Sun and spinning Earth as well are applied to accelerate the motion. Increased speed also increases the centrifugal force and hence Moon increases distance to Earth.

Q: Then I'll tell you the rest of it. Speed is dropped at 'B' and hence Moon is lifted towards Earth due to decrement in centrifugal force. Then However Moon is also promoted to the same orbit of Earth with no difference. But you cannot exhibit therein how Moon is departing from Earth at a rate of almost 4cm per year. Can you?

A: Good reasoning but you have forgotten that Sun is the big boss.

Q: Yes what then?

A: Just balance the radial forces applied upon Moon at the position 'B' in figure-08. Resultant force to pull Moon towards Sun is bigger on blue moon.

## 2.31 Stability Analysis on blue moon day noon:

Let us take mass of moon as M,

$$\begin{aligned}\text{Total force towards Earth} &= \text{gravitational drag by Earth} + \text{centrifugal force about Sun} \\ &= MxGe + M (2.878 \times 10^6 \text{cm/s})^2 / (1.494 \times 10^{13} \text{ cm}) \\ &= M[0.269 + 0.554] \\ &= \mathbf{M[0.823]} \text{dynes}\end{aligned}$$

$$\begin{aligned}\text{Total force towards Sun} &= \text{gravitational drag by Sun} + \text{centrifugal force about Earth} \\ &= MxGs + M (1.017 \times 10^5 \text{cm/s})^2 / (3.847 \times 10^{10} \text{ cm}) \\ &= M[0.592 + 0.268] \\ &= \mathbf{M[0.860]} \text{dynes}\end{aligned}$$

**Conclusion:**

**Force on blue Moon towards Earth < force on blue Moon towards Sun**

Therefore Earth is failing to get Moon lifted to the level of his own orbit and due to this weakness Moon is gradually being departed from Earth. (please refer to '**Theory of Gravity Momentum**' pdf/2014 for the complete mathematical analysis)

**Q: My God!.....Do you really mean that we are losing our Moon on that way?**

A: Yes really on some unfortunate blue moon day noon, she shall have her final bow to her husband.

**Q: But it will never happen and your deduction is wrong. As you have deduced the force towards Sun at 'B' is a bit greater but Moon is still with us and what has gone wrong with your analysis?**

A: Nothing gone wrong, but fortunately center of gravity of Moon has a bit shifted towards Earth in the origin and therefore we are still in the safe border. But the matter is hanging and aggravating year by year. If you are interested I can calculate the **sad day blue moon** of the great farewell.

**Q: Good heavens!!.. how do we do without a Moon? What do you suggest as a measure of Moon Preservation? Earthmen can do something?**

A: Yes, by a controlled reduction of orbiting speed of Moon around Earth, would fix the distance of Moon from Earth.

**Q: My God!... How could man do that?**

A: By blasting of nuclear rockets mounted upside down upon the Moon surface, in the correct position, correct direction, correct timing and correct magnitude.

**Q: To buffer the moving speed by the theory of action and reaction?**

A: Yes, Sir **Isaac Newton** is the man there ultimately with his third law, to save the Moon from leaving. But the other phenomena such as 'Global Slowing' and 'Orbital Elevating of Earth' could never be controlled by Man, because they are directly caused due to growth of mass, as explained by the "**THEORY OF SOLAR MASS TRANSPLANTATION**".

(END OF THE DIALOG)

## 03. THE EMPHASIZED SUMMERY:

### ❖ Theory of Solar Mass Transplantation

'Productive Planets' like Earth are spinning about the magnetic polar axis. They absorb 'Energy' from 'Solar Wind' to rotate. Lightning strokes give evidence to prove 'External Energy Absorption' by Earth. Energy is 'Mass' with no arguments [ $E=mc^2$ ] and hence the planet is being grown by mass and size with time.

### ❖ Planetary Orbital Elevation

'Productive Planets' are growing in mass. Then kinetic energy in orbital motion too is increased and the planets are **elevated in to far orbits** of higher potential energy with respect to Sun. Earth is elevated at a rate of 15cm per year.

### ❖ Global Slowing

Spinning of Earth is slowed down due to increased **surface resistance** by 'Megacity Building Columns' and also owing to '**Growth of Earth**' in mass.

### ❖ Moon Orbital Elevation

The '**Orbital Motive Force**' upon Moon applied by the grown Earth becomes bigger and hence Moon is accelerated. The accelerated Moon is then elevated in to a higher orbit by gradual increment of the distance to Earth.

### ❖ Early Warning of Moon's Departure

Gradual increment of distance between Earth and Moon (by 4cm per year) is reaching to the '**Danger Margin**' until the due farewell of Moon, which shall take place on a '**sad day noon Blue Moon**'.

**END.**