Moon, Earth (ocean floor, plate boundary, plate tectonics, driving force), asteroid belt and differentiated meteorites, origin of Jupiter's Great Red Spot, all sources verified by Abduction

*Akira Taneko¹

1. SEED SCIENCE Lab.

Purpose of science is to explain all Mysteries of Universe. So far, Laws of science and Truth have been explored by Induction and Deduction. Since the quest for origin does not go back in time, Initial state was unknown. Creative reasoning and evaluation are important in exploring Origin. It is a method called abduction that is evaluated based on Results of evolution. Specifically, we propose **a New Model** and explain all Results (features) of One-time evolution in a unified manner.

In order to be a mantle-only moon in Giant Impact (GI) hypothesis model, it must accidentally hit Earth at a special angle of 30 degrees at a speed of Vx=7km/s. Calculated Lunar Orbital Energy(3×Re) is only 1/20 of Actual Lunar, (GI) hypothesis could not be tested.

This is a new Hypothesis for Moon Formation Model. Instead of Giant Impact GI model (a protoplanet with a differentiated Mars size), we assumed **An Impactor** (MI) with **Lunar-sized differentiated Only Mantle**. Earth has a core (Fe + Ni) with half Radius, and its outside is covered with a mantle. Discovery that Moon is made of only Mantle is a major feature. In order to reproduce Characteristics even in GI hypothesis, we assumed various angles and velocities and calculated Mechanism of agglomeration without including Core in Debris, and searched for special conditions. However, Lunar orbital energy was only 1/20 of Current value. Impact energy given to Earth is about 2.5 times higher for GI than for MI. Therefore, in Collision of the GI model, Earth is completely deformed to Core, but in Collision of MI model, Core is intact, Earth mantle is missing, and Moon is emitted only in Mantle. In MI hypothesis, when Solar system was observed because of Inevitable formation of a moon-sized mantle impactor, it was found that Planet was missing at Position of the asteroid belt according to Bode's law. Assuming that Missing planet was destroyed by accidental collision, Debris splatters in all directions and cannot aggregate. "Inevitable Collision Idea" (Core+Mantle change Only Mantle)

Hint is Comet Shoemaker Levi Ninth, which left a line of traces on Jupiter and set a good example of a tidal rupture. Problem is the mechanism by which a circular orbit CERRA (protoplanet of Mars size at Ceres) becomes an elliptical orbit with tidal rupture. Due to Perturbation of a massive gas planet born around Sera, Angular momentum of Serra was absorbed by Jupiter and flattened Serra's orbit. With Law of orbital energy being constant, Serra ruptures due to tidal forces where the attractive forces of Sun and Jupiter balance each other, and Mantle fragments are arranged in a line like a Train and orbit Same elliptical orbit.

Collision with Earth occurs at Intersection of this elliptical orbit and Earth's orbit every meeting cycle. Speed and Angle obtained by theoretical calculation are 12.4 km s and 36.4 degrees. Although Impact velocity is higher than Secondary space velocity of 11.2km/s, Current lunar orbital position can be easily explained by considering Coefficient of restitution. Earth's Mantle is denser near Center, and Ejected Earth Mantle pieces are eccentric and Outer surface is covered with **Mmelting Mantle**. However, Crater formed during Heavy Meteorite Bombing Period becomes a Black Moon Sea when Inner Basaltic Material remelts and flows out. Back side is Same Andesitic Breccia, so Sea is not formed and it becomes a Desert of Moon.

Emitted Moon is eccentric and Earth rotate each other around Common center of gravity. Heavy side (surface) is stable near Common Center of Gravity. Heavy side (surface) is stable near Common Center of Gravity. So Surface is always facing Earth, so Backside is not visible from Earth.Origin of Earth could all be explained by MI.

In this **"Multi-Impact Hypothesis"**, Origin of Earth is further described as[**Deep ocean floor of Earth**] [plate boundary][**plate tectonics**][**driving force**][rapid change in plate movement direction][start of overlap between plates][**return Pacific arc shape Explanation of archipelago/back-arc concave basin/trench**] [Antarctica cessation][Transform fault][Hirakawa Formation][Eccentricity of Van Allen Zone][Earth field reversal][Inclination of earth axis] did it.As Origin of Solar system,[feeding zone][asteroid belt][differentiated meteorite][Love pile asteroid] [**Great Red Spot of Jupiter**] [Mantle of Pluto][Core Rich of Mercury],[Impact **velocity** and **angle** of **Mantle fracture**] can be calculated from Theory, and [Moon Eccentricity][Why Lunar sea concentrates on Surface][Reason why Moon always faces Earth] could be explained in a unified manner, which helped to clarify **Missing link** in **End of Hades**. It can be said that it was **completely verified** by **Abduction**. cf.S-IT25(May 26A05),M-IS22(May 24,201B)

Keywords: The method of examining the mystery of planet origin is an abduction that can come up with a groundbreaking model and unify the multiple present conditions of the results of evolution., Multi-impact hypothesis, Giant impact hypothesis, creative inference of evolution , Origin of Moon,Lunar orbital energy, the moon always faces the earth, the surface has a lunar sea, the mantle only the moon, Origin of Earth's Ocean Bottom and Plate Boundary, Plate Tectonics, Driving Force, Earth's Rotational Axis, Rapid Change in Plate Movement Direction, Start sinking of Plate, Origin of the asteroid belt, Differentiated Meteorite, Jupiter's Red Spot, Pluto, Mercury's core / mantle ratio,, Cardinal Pacific Arc Islands and a back arc ocean basin and the trench, Abduction(Creative reasoning),Induction,Deduction

