

Verification method on errors in the theory of general relativity⁽²³⁾

- The theory of general relativity must be modified. -

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Abstract

1. From the perspective of Newtonian physics, a moving train of acceleration has a non-inertial frame and an observer inside the train can recognize the moving process of acceleration. However, from the viewpoint of the theory of general relativity, an elevator which falls with acceleration has a stationary inertial frame of zero gravity and an observer inside the elevator cannot recognize the moving process of acceleration. In here, the two accelerations of the train and the elevator are expressed by operating principles of different conditions.

2. If kinetic energy is provided to a stationary train, all objects inside the train which moves with acceleration are repulsively resistant to the magnitude of inertial force. However, when the gravitational factor penetrates an elevator, the kinetic energy of gravity inside the elevator is generated(expressed). Also, because of the process in which the inertia of the elevator conserves the kinetic energy of gravity, the motion of free fall with acceleration is autonomously done. Likewise, the effect in which the elevator during the motion of free fall conserves the kinetic energy of gravity can be easily proven by actual experiments.

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※ **Words of Reference** – In the body of the thesis, the opinions in the theory of general relativity are denied and an alternative will be given. The author hopes that the theory of general relativity in position of the disposal should be excluded from the basis of judgment.

I. Introduction

Galileo and Einstein assumed that the volume(room) of a train moving at constant velocity has its own inertial frame in the precondition for introducing the theory of general relativity. Also, they set an independent coordinate system for the inertial frame of the moving train. Therefore, the law of Newtonian physics can be established inside a train moving at constant velocity.

From the perspective of the special theory of relativity, the inertial frame and the coordinate system must coincide in the same phase. Therefore, the range of the inertial frame and the coordinate system must be limited inside the moving train and the outside of the moving train cannot be included in the inertial frame and the coordinate system of the train.^[4] <<http://batangs9.com/E-4.pdf>>

However, Einstein misunderstood(deluded) that the inertial frame and the coordinate system of the moving train are extended to the final boundary of the outer space which is off the volume of the moving train. If the coordinate system is extended to the outside of the moving train, this extended coordinate system is just an imaginary ideological model(hypothetical structure) without any basis for the inertial frame. Therefore, the physical phenomenon of the outside of the train which is expressed by the coordinate system of the moving train only have values of the imaginary expectations and does not exist as the actual outcome.

The movement speed and kinetic energy of objects are mutually exchanged and maintain a proportional relation which can be

conveniently expressed from the viewpoint of the level of the object like in the laws of motion in Newtonian physics. The mathematical expression of these objects is pretty simple(*concise*) and has a comprehensive meaning.

However, the operating principle of the process in which movement speed and kinetic energy are exchanged cannot be clearly interpreted from the perspective of the level of objects. Also, the conservation method of kinetic energy cannot be understood in detail. Likewise, the expression of the level of objects has a major flaw but the necessity for an alternative has not been raised due to obedient blind faith on the authority of the special theory of relativity and Newtonian physics.^[1]

<http://batangs9.com/E-1.pdf>

All objects are composed of elementary particles and all physical phenomena occur due to the characteristics(*active function*) of elementary particles. Therefore, the operating principles of all physical phenomena must be interpreted in terms of elementary particle level. However, the existence of elementary particles could not be recognized at the time of the introduction of classical physics and the special theory of relativity. Under these circumstances, the implementation of the inertial frame was an inevitable choice.^[7] <http://batangs9.com/E-7.pdf>

The existence of elementary particles was confirmed by modern physics and quantum physics. Therefore, quantum physics can partially reflect the characteristics of elementary particles. In here, the expression of quantum physics has specific meanings and more minute than that of the object level.

The theory of relativity(*or classical physics*) which expresses the operating principle of physical phenomena in terms of object level, and quantum physics which expresses in terms of elementary particle level, have exclusive boundaries. Therefore, the theory of relativity and quantum

physics cannot be integrated into one system.^[1]

<http://batangs9.com/E-1.pdf>

In the theory of general relativity, the operating principle of gravity was understood from the level of objects. That is, the inertial frame of the moving train and the elevator of free fall are concepts introduced from the perspective of the level of objects. In addition, the spatiotemporal bending structure and the multi-dimensional(9th dimension, 11th dimension) space model are means of expression starting at the object level.

However, the volume of the elevator means the distribution of elementary particles, and all elementary particles of the elevator individually penetrate the spatial system and the coordinate system of the outer space. Also, the inertia of elementary particles constituting the elevator individually reacts to the action of gravity. Therefore, if the operating principle of gravity is expressed in terms of elementary particle level, the role of inertial frame which symbolizes(represent) the free-falling elevator, is unnecessary.^[14] <http://batangs9.com/E-14.pdf>

All opinions in the theory of general relativity(spatiotemporal bending structure and multi-dimensional space model) only apply the logic of inertial frame and do not reflect the characteristics of elementary particles. Therefore, the theory of general relativity cannot escape the limitation of the level of objects and must be included in the range of classical physics. If Einstein recognizes the existence of elementary particles from the beginning, he would not have implemented the logic of inertial frame.

The flaws in the logic of inertial frame will be explained in the body of the thesis. Contradictory claims and fiction in the theory of general relativity will also be presented. Lastly, a verification method on errors in the theory of general relativity will be provided through actual experiments.

II. Body

1. Logical contradiction in the theory of general relativity

As described in the previously introduced thesis, "The Action of Gravity and Controlled Domination in Outer Space," All elementary particles have their own active function and gravitational factor(or nuclear power, electric force) is infinitely produced by the active function of elementary particles. Also, gravitational factors are propagated to the final boundary(end) of the outer space like light waves. The propagation range of these gravitational factors means the massive gravitational field of the outer space and the function(gravity) of gravitational factors dominates the whole order of the universe.^[14] <http://batangs9.com/E-14.pdf>

The individual density of gravitational factors near the earth is very high. In addition, the base of the outer space is pushed away toward the sky at a velocity of 9.8 m/sec during the propagation process of gravitational factors emitted by all objects on earth. The displacement effect of the outer space constitutes the spatial system of the earth's gravitational field and the spatial system of the gravitational field formally conserves the distance and the propagation speed(c) of light waves. Therefore, the spatial system of the gravitational field can have an independent coordinate system.^[15] <http://batangs9.com/E-15.pdf>

From a microscopic world perspective, the diameter(volume) of elementary particles is very small and the space between elementary particles is very wide. Also, all elementary particles that constitutes the moving train individually penetrates the spatial system and the coordinate system of outer space(or the gravitational field of the earth) like the progress of bullets.^[13] <http://batangs9.com/E-13.pdf>

The spatial system and the coordinate system in outer space always maintain their original positions and embrace the individual movements of all elementary particles. The individual motions of these elementary particles must be expressed as absolute values on the coordinate

system of the outer space. That is, the coordinate system which is displaced together with the elementary particles of a moving train does not exist.

The range of the inertial frame cannot have a clear boundary line from the micro viewpoint of the level of elementary particles. For example, the space between elementary particles is empty and the boundary of the inertial frame in emptiness is temporarily changed. Also, when a bucket without a cover or a convertible is moving, the boundary between the stationary inertial frame and the moving inertial frame is vague.

The volume of a train has an exclusive range(area) on the volume of other objects. However, the inertial frame of the train cannot have exclusive independence with respect to the spatial system of the outer space. Even if the distribution of elementary particles constitutes the inertial frame of a moving train, the inertial frame of the moving train is just a fictitious conceptual model.^[4] <<http://batangs9.com/E-4.pdf>>

The inertial frame of a moving train has spatial transparency like the shape of a ghost or a shadow. Also, the coordinate system set on the inertial frame of a moving train does not have any useful purpose. Therefore, all physical phenomena occurring inside a moving train is controlled by the outer space and the changes inside the train are expressed by the coordinate system of the outer space. That is, the physical laws of Newtonian physics cannot be established in a moving train.

The argument of this writer that Newtonian mechanics doesn't apply to the inside of the moving train means that all the physical quantities inside of the train vary at the rate of the Lorentz transformation. In other words, when a train moves at a constant velocity of v , the physical phenomenon arising from the inside of the train is always influenced and changed as much as the velocity of v .

The Lorentz transformation where the movement velocity is of v reflected should be applied in order to reasonably indicate the change of the physical phenomenon. The physical phenomenon of both the outside(on the roof) and the inside(room) of the train must be changed also at the same rate.^[6] <<http://batangs9.com/E-6.pdf>>

Einstein presupposed in order to explain the concurrency of time that both the forward and the backward propagations velocities(C) of the light wave would be the same. But the forward and the backward light velocities measured inside of the train are different. It is possible to express the concurrency of time with absolute value if we well use the coordinate system of the space and the propagation distance(propagation velocity). Accordingly, the concurrency of time introduced in process of establishing special theory of relativity may be regarded as an abnormal argument that distorted the properties of space(space system, coordinate system, elasticity of light velocity) and the light propagation process.^[2]

<<http://batangs9.com/E-2.pdf>>

A moving train with acceleration must receive an external kinetic energy from the perspective of the special theory of relativity and Newtonian physics. Also, the moving train with acceleration has a non-inertial frame. Therefore, an observer of the train moving with acceleration can recognize the supply(effect) of kinetic energy through the reaction of inertia.^[13] <<http://batangs9.com/E-13.pdf>>

However, in Einstein's theory of general relativity, it is interpreted that the spatiotemporal bending structure of the gravitational field induces the free fall of an object and the motion of free fall has acceleration. In here, the free fall of acceleration is done heteronomously(passive) and does not conserve kinetic energy. Therefore, a free-falling elevator has a stationary inertial frame of zero gravity and an observer inside the elevator cannot recognize the motion process of acceleration.

inside the train of acceleration, the observer can recognize the action

of kinetic energy. But inside the elevator of acceleration, the observer can not recognize the action of kinetic energy. This is because the train and the elevator accelerate under different conditions. That is, the acceleration process of the train and the elevator are different from each other, and the train and the elevator of acceleration have different characteristics.

The stationary train is compulsively(heteronomously) accelerated by the process of receiving external kinetic energy. However, the elevator is autonomously(active) driven by the “inertial motion of acceleration” due to the role of conserved kinetic energy. That is, ★ the train with acceleration is supplied with kinetic energy as the present progressive type and the elevator with acceleration is the process which converts the motion effect after conserving(saving) kinetic energy.^[14]

[<http://batangs9.com/E-14.pdf>](http://batangs9.com/E-14.pdf)

When a stationary train is accelerated by the action of kinetic energy, all objects inside the train repels as much as the magnitude of inertia. Also, ★ when the gravitational factor penetrates an elevator, kinetic energy of the gravity is generated(occurred) inside the elevator and the elevator which conserves the kinetic energy of gravity falls with acceleration. The free fall of this elevator is done autonomously, and the autonomous falling motion is the free fall.

2. The experimental method to verify the cause of free fall

From the perspective of the theory of general relativity, the inertial frame and the coordinate system of the elevator are simultaneously accelerated and all physical quantities(matter, quantity of electric, time) inside the elevator constantly maintain their original values. Therefore, the laws of motion in Newtonian physics must be established inside a free-falling elevator.

However, an elevator which is composed of the distribution of

elementary particles has spatial transparency, and an independent spatial system cannot be set inside a free-falling elevator. That is, the laws of motion in Newtonian physics cannot be established inside a free-falling elevator. Therefore, an opportunity to verify the validity of the theory of general relativity is necessary.^[13] <<http://batangs9.com/E-13.pdf>>

As described in the previously introduced thesis, "The Action of Gravity and Controlled Domination in Outer Space," When a gravitational factor passes through a stationary object (elementary particles), the kinetic energy (gravity) of the acceleration is generated in the present progressive form inside the stationary object. The argument of this logic can be easily confirmed through the experiment in Figure 1.^[14]

<<http://batangs9.com/E-14.pdf>>

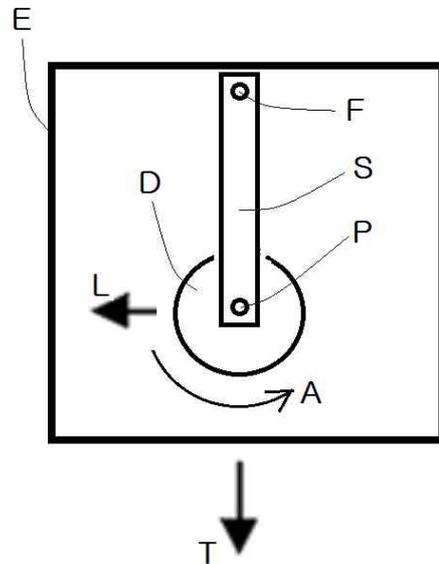


Figure 1. Diagram showing the process in which a free-falling rotating disc(*D*) is moving left

In the diagram shown on Figure 1, *E* is the free-falling elevator, *D* is the disc rotating at high speed, *P* is the central axis of the disc(*D*), *S* is the support of the disc(*D*), *F* is the central axis of the support(*S*), *A* is the rotating direction of the disc, *T* is the falling direction of the elevator(*E*), and *L* is the left direction of the rotating disc(*D*). In here,

the disc(D) is rotating toward the direction of A and the rotating disc(D) is vertically suspended on the ceiling of the elevator(E) through the support(S).

As shown on the diagram in Figure 1, when the elevator(E) falls with acceleration, the rotating disc(D) is expected to have the movement effect in the left direction(L). This is because the centrifugal force of the rotating disc(D) is further increased to the left direction(L) by the process in which the torque of the disc(D) and the kinetic energy of the fall are combined into a single vector. That is, the kinetic energy of gravity acts additionally on the torque of the disc(D).

When the rotary disk(D) free falls with accelerating velocity, the left rotational force(downward movement) of the disk receives additional help into the same direction as much as the kinetic energy of the acceleration while the right rotational force(upward movement) of the disk receives the offsetting resistance against the opposite direction as much as the kinetic energy of the acceleration. Therefore, the Centrifugal force of the disk(D) gets imbalanced because it increases into the left side but decreases into the right side. The center axis(P) of the disk(D) is shifted into the left side(L) as well when the biased effect of the Centrifugal force is being recovered stably.

Figure 2 shows the situation in which the disc(D) inside the elevator is rotating in the opposite direction. In the diagram shown on Figure 2, B is the rotating direction of the disc(D) and R is the right direction of the disc(D).

When the disc(D) inside the elevator is rotating in the direction of B like the diagram shown in Figure 2, the rotating disc(D) has an effect of moving to the right direction(R). In here, the effect in which the rotating disc(D) is moving to the right direction(R) means that the centrifugal force of the rotating disc(D) is further increased to the right direction(R)

by the process in which the torque of the disc(D) and the kinetic energy of the fall are combined into a single vector.

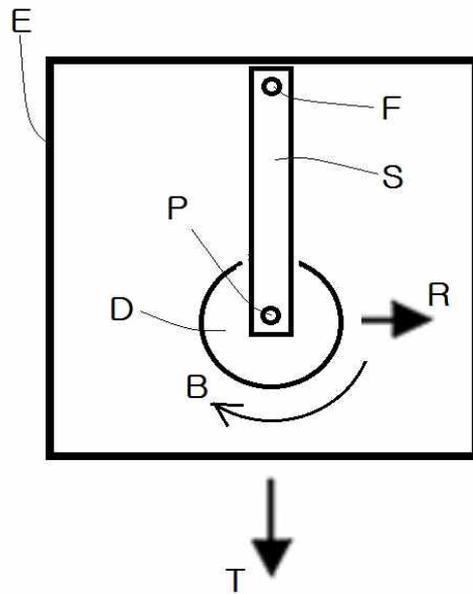


Figure 2. Diagram showing the process in which a free-falling rotating disc(D) is moving right

The kinetic energy of gravity is constantly produced in the present progressive form inside the elevator. Also, the kinetic energy of gravity is conserved through the inertial force of elementary particles and the magnitude of conservation of kinetic energy increases in an integral form. In here, elementary particles that conserve the kinetic energy of gravity in an integral form fall with acceleration and the motion of fall of the acceleration is done autonomously(active).^[14]

<http://batangs9.com/E-14.pdf>

A free-falling elevator which conserves the kinetic energy of gravity cannot have a stationary inertial frame of zero gravity. That is, the free fall of the elevator does not move heteronomously(passive) by the spatiotemporal bending function. Therefore, the laws of motion in Newtonian physics inside a free-falling elevator cannot be established. From this perspective, all claims in the theory of general relativity must be modified(abandoned).

However, if the rotating disc(D) in the experiment in Figure 1 does not move to the left and right side direction(L, R) and maintain its original position, it should be interpreted that the free-falling elevator has a stationary inertial frame of zero gravity. In here, the rotating disc and the elevator do not conserve the kinetic energy of gravity and fall at zero gravity. Therefore, all claims in the theory of general relativity can be chosen. That is, the spatiotemporal bending structure and the multi-dimensional space model are valid in the introduction of the theory of general relativity. ^^

III. Conclusion

The diameter of elementary particles is very small and the space between elementary particles is very wide. Also, All elementary particles that make up the volume of a train individually penetrate the spatial system of the outer space like the progress of bullets. Therefore, the volume of a moving train which represents the distribution of elementary particles cannot have its own inertial frame and coordinate system independently. That is, the inertial frame of a moving train is just an imaginary conceptual model(hypothetical structure).

★ The kinetic energy of the elevator is produced in the present progressive form while the gravitational factors pass through the elevator. Also, the free fall of the acceleration is done autonomously by the process in which the inertial force of the elevator conserves the kinetic energy of gravity. Therefore, the spatiotemporal bending structure and the multi-dimensional(9th dimension, 11th dimension) space model are unnecessary in the process of analyzing the operating principle of gravity. From this perspective, all claims in the theory of general relativity must be modified(abandoned).

※ **Words of Request** – If there is any possibility or if anyone has a positive interest in the experimental method above, please try it. The author does not have any quantitative data related to the experiment above.

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* Difference becomes specialty, Ideal becomes reality,
at the center of world in the name of center
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