Action and reaction of a gravitational field

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1. Summary

When we look at the action of gravity at the elementary particle level of Energy Body Theory, we can see that elementary particles and gravitational fields act and react, forming distortions in the foot of elementary particles and generating kinetic energy, which is a wave in space. This is the cause of gravitational mass and is the same cause as inertial mass. The gravitational field forms a spherical layer with a Planck scale thickness in which the amount of energy decreases as it approaches the star. For this reason, the action and reaction between the gravitational field and elementary particles occurs continuously toward the center of the star. For this reason, the increase in distortion in the foot of elementary particles and the increase in kinetic energy are continuously generated and added up. This is explained using a model airplane and a photon released from a free-falling elevator. When photons are in a gravitational field, their speed increases, but since they do not act or react with the space of the gravitational field, there is no increase or decrease in shape or energy.

2. Cause of Gravity

Riemann space considers the cause of gravity to be the distortion of space and the density of space. In other words, the density of space is sparse, far from the star, and dense near the star. For this reason, it is thought that gravity is weaker far from the star and stronger near the star.

However, Energy Body Theory takes the opposite approach. Energy is greater far from the star and less energy near the star. For this reason, it is thought that matter moves to the side with less energy.

In other words, the cause of gravity is the difference in the amount of energy between space layers. The space layer is a state in which the energy cell bodies that form the space contract to form a sphere centered on the star. Its thickness is the Planck scale. The contraction situation of the energy bodies that form the space layer is almost the same everywhere. This point is important. It is not thought that the contraction rate becomes smaller as you move away from the star and the contraction rate becomes larger as you move closer to the star. Instead, the number of contracted energy cell bodies increases as you move away from the star, and the number of contracted energy cell bodies decreases as you move closer to the star. This causes the space layer farther from the star to have more energy, while the space layer closer to the star has less energy.

This causes matter (elementary particles) to move toward the center of the star, where there is less energy. This is the exact opposite of Riemann space, which says that matter (elementary particles) is attracted to areas of high-density space. (This is a major shift in thinking even in the process of considering gravity using Energy Body Theory.)

3. Action and reaction of matter and gravity

In other words, matter (elementary particles) naturally move toward the center of a star where energy is low. They are not pulled by dense space.

However, when matter (elementary particles) tries to move, they encounter resistance from space. Matter acts on space, and space reacts to matter. As a result of matter acting on space, waves (kinetic energy) are generated, and as a result of space reacting to matter, distortion of the foot of the elementary particles accompanied by restoring energy occurs. This is the imposition of gravitational mass on matter by gravity. This is the same structure as the imposition of inertial mass on matter by inertial force. Remember Einstein's famous equation, "Energy is mass times the speed of light squared." In Energy Body Theory, the distortion of the foot of the electron is the speed of light. However, this is a future issue that has not yet been fully solved.

In a gravitational field, every time a particle passes through a space layer of Planck scale thickness, action and reaction occur between the matter and space, increasing the distortion of the foot of the elementary particles and increasing the kinetic energy, which is a wave. The space layer may be a concept similar to a geodesic in Riemann space or a brane in superstring theory.

By the way, every time a substance crosses a space layer, the kinetic energy (wave) generated in space accelerates. Since the kinetic energy of an electron becomes a photon, this shows that photons also accelerate in a gravitational field.

4. Explanation of the diagram

The freely falling elevator, the model airplane released and light beam emitted from inside the elevator are represented by a single elementary particle, and the action and reaction between the elementary particle and space are observed from another inertial frame (outside the elevator).

Left: The person in the elevator is represented by a single elementary particle. Due to the energy difference between the space layers, the elementary particle tries to move toward the center of the star, pushing the energy cell bodies in space (action), generating a wave in space (compression and expansion of the energy cell bodies). Conversely, the elementary

particle receives resistance from space, distorting its foot (reaction). Each time the elementary particle crosses a space layer, this action and reaction are added together. This is gravitational acceleration.

Center: When a model airplane is thrown horizontally by an elevator passenger and observed from an inertial frame outside the elevator, the model airplane's trajectory describes a parabola. The reason I used a model airplane instead of a ball is to emphasize that the model will tilt forward as it falls.
(Note: I don't know if this is actually the case, but I did it this way. This way, it is thought that the person inside the elevator will see the model airplane rotating and moving horizontally, rather than simply moving horizontally.)
When observed from inside the elevator, the model airplane's trajectory describes a straight line.

Right side: The light emitted from the light source inside the elevator is traveling and spreading its food, while it is observed from an inertial frame outside the elevator.
The observer observes the light from the side of the photon and can only sense the light when the side of the photon reaches the observer. Photons move while accelerating vertically, and spread their sides horizontally, so the side of the photon describes a parabola. It may be surprising that photons accelerate, but it is not surprising for the following reason. Before being separated from electrons, photons were the kinetic energy of electrons. Since kinetic energy accelerates, it also should be assumed to be accelerated. However, since photons are waves separated from electrons, there are limited ways in which they can accelerate. In a gravitational field, the energy difference between space layers naturally accelerates photons. At this time, the photon neither gains nor loses energy from the gravitational field. Because it is not attached to an elementary particle, the distortion angle of the photon's tail remains constant from when it was emitted from the light source.
If you observe light from inside an elevator, you will observe it traveling in a straight line at the speed of light.

5. Conclusion

The gravitational field formed by the space layer causes the energy of space to decrease continuously toward the center of the star. For this reason, matter in the gravitational field moves toward the center of the star, which has less energy. At this time, matter (elementary particles) acts and reacts with space, forming distortions in the foot of the elementary particles and generating kinetic energy, which is a wave, in space. This action and reaction

occurs continuously toward the center of the star, so the distortion of the foot of the elementary particles and the increase in kinetic energy are continuously generated and added up. When photons are in a gravitational field, their speed increases, but since they do not act or react with the space of the gravitational field, there is no increase or decrease in shape or energy.