Maybe Richard Feynman was right?

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According to generally accepted theories, gravity, when deepening into the Earth, first increases and then decreases to zero at its center [1]. At the same time, there is the effect of gravitational time dilation [2]. The less gravity, the faster time flows. Therefore, in the center of the Earth, the speed of the passage of time must be greater than on the surface. However, current theories argue that this is not the case. Time in the center of the Earth slows down under the "accumulated action of gravity", as written in the article [3]. Richard Feynman, in his lectures, said that "one should be much more careful in the future when talking about the age of objects such as the Earth, since the center of the Earth should be a day or two youngers than its surface" [4]. In article [3], based on PREM, they calculated that the center of the Earth is 2.49 years younger than its surface, assuming that Richard Feynman misspoke. Let us consider this question from the point of view of the existence of a chronofield in our universe [5].

Is time slowing down or speeding up at the center of the Earth?

If the hypothesis of the chronofield is correct, then the entire mass of the Earth reduces the energy of the chronofield in its entire volume by the corresponding value $E_E=M_Ec^2$, where M_E is the mass of the Earth, c is the speed of light. This leads to the fact that within the entire volume of the Earth, the speed of the clock remains constant. Including in the center.

Only the relativistic effect caused by the rotation of the Earth around its axis has an impact on slowing down the speed of the clock in the center of the Earth. As a result of this effect, the core of the Earth is one or two days younger than its surface [3].

This is probably what Richard Feynman had in mind when he lectured. The difference in the age of the center and the surface of the Earth indicated by him is not a slip of the tongue. Sometimes, the genius of a person on an intuitive level, allows him to see what is still unknown to others at the moment.

Any theory must be confirmed by experiment. Almost all experiments related to measuring the acceleration or deceleration of time were carried out with the removal of atomic clocks upward from the Earth's surface. On the Internet, it was not possible to find experiments to measure the difference in the rate of clocks when deepening into the Earth.

Such an experiment will not cause large expenses. It is enough to find a deep mine in which all work has been completed. Place two atomic clocks at different depths in a vertical shaft and measure their speed. The main thing is that the surrounding rock is the same for both watches. If the clocks show the same time, this will confirm the above assumption.

Another experiment that can confirm or disprove this can be done in the ocean. This experiment will require some expenses. Atomic clocks must be placed in two identical bathyspheres or similar waterproof devices. Bathyspheres must be connected by a cable. The length of the cable should be as long as possible to increase the distance between the clocks. Bathyspheres sink into the ocean as deep as possible. The main thing is that bathyspheres with atomic clocks should be located one above the other. It is also necessary to equalize the pressure in both bathyspheres. The lower pressure in the upper bathysphere can affect atomic clocks. Such an experiment will make it possible to more accurately determine whether the speed of the clock is the same or not as it sinks into the depths of the Earth.

Conclusion.

The correctness of the calculations of the age of the Earth's center made in [3] is beyond doubt. But it is based on generally accepted theories. From the point of view of the chronofield hypothesis, the speed of the clock at any point inside the Earth will be the same. Only the relativistic effect will change the speed of the clock. If so, then Richard Feynman was right. This can only be proven or disproved experimentally.

References.

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