

Translation into English: [Chapter 2 - Catalogue of Errors for Both Theories of Relativity](#)

from the German documentation of G.O. Mueller

"On the Absolute Magnitude of the Special Theory of Relativity - A Documentary Thought Experiment on 95 Years of Criticism (1908-2003) with Proof of 3789 Critical Works" - Text Version 2.1 - June 2004
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Q: Methodology / Error No. 7

The inertial effects in a braked train (a chaos of freely falling objects) is explicable, according to Albert Einstein, in terms of the gravitational field of the fixed stars

The GTR also maintains the relativity (equal value, equivalence) of accelerated motion. To refute this point Philipp Lenard chooses, as an example of accelerated motion, a suddenly braked (negatively accelerated) train. According to the GTR the motion of the train and the relative motion of the earth should be equivalent, i.e. it should not be possible to decide whether the train or the earth has braked.

The critics dispute the relativity (equivalence) of the motion of train and earth, because physical experience teaches us that it is only in the train that non-fixed objects fly around chaotically under inertial effects whereas on the earth no inertial effects appear and a church steeple next to the railway remains standing. If, instead of the train, the earth had suddenly braked, all of the non-fixed objects on the (eastwards-rotating) earth would fly around chaotically in an eastward direction and the church steeple, given a sufficiently large negative acceleration, would fall over in the eastward direction. Since, with the braking of the train, the forces of inertia only appear in the train and not on the earth, one can recognize the inertial effects of the braked as well as of the accelerated motion, as a consequence of which one can say that accelerated motion is absolute and is not equivalent to the relative motion of the environment.

Referring to the discussion of this scenario, Philipp Lenard, during the discussion in Bad Nauheim in 1920, put the question to Albert Einstein (p. 666): "Why is it not possible, according to the theory of relativity, to detect a difference between the case in which the railway carriage is braked or the surrounding world is braked?" Albert Einstein answered this in 1920 in Bad Nauheim (p. 666): "It is certain that we observe effects relative to the train and, if we want, we can interpret these as inertial effects. The theory of relativity can equally well interpret these as effects of a gravitational field. [...] The controlling gravitational field, relative to the braked train, corresponds to an inductive effect given rise to by the distant masses." Lenard responded (p. 666) that "the fields of gravity introduced here must correspond to processes and these processes have not as yet been experienced". Einstein's answer consisted solely of a visualization; practically speaking, the driver of the locomotive, on braking, had generated a gravitational field and could repeat this as often as he chose to.

To Einstein's claim as to the effects of gravitation of the distant masses another question might be asked: Why must the train first expend energy to bring it to a state of motion before generating the supposed effects of gravitation by braking it again? Why does this gravitation not exert an effect earlier?

Albert Einstein's reply to Lenard was, by the way, very weak - a partial retreat. He conceded that the explanation with inertial effects is plausible and maintains for his explanation involving the distant masses only an equity that the GTR can also interpret differently. With this, his explanation completely misses the security with which it is celebrated in the accounts of the relativists.

A conclusively justified answer to Lenard's question, as to why the steeple does not fall, remains to be given right up to the present day. The alleged effect of the fixed-star masses is an error from several standpoints. As a direct statement of the GTR it has proven to be incorrect (cf. Error M 10). Here, for example, it is solely treated as a methodical error, because irrefutable physical experience (inertial effects) is to be countered by pure assumptions (fixed-star gravity), that have furthermore been shown to be untenable due to several proven serious errors. The model of fixed-star rotation is logically and physically untenable. Even the Catholic church - since Galilei - can't think of any new arguments.

Lenard's question has rightly become famous for three reasons: It touches on the core of the theory; its answering by the criticism (the difference is notable) can rest its case on the irrefutable experience of inertial effects; and Albert Einstein cannot dispute the experience of the forces of inertia in his answer, cannot claim an equivalent deceleration of the earth, and only attempts to discuss the cause of the forces of inertia in the braked train and to fall back on the gravitational effects of the "distant masses", admitting at the same time a certain arbitrariness. He is unable to dispel the direct proof of the one-sided inertial effects (only appearing in the train). The alleged alternative cause does not make the one-sided inertial effects vanish. This state of the argumentation has not changed since 1920.

Albert Einstein's claim gives rise to a series of closely related questions, that demonstrate the untenable nature of the hypothesis of the fixed-star masses:

(1) How do the fixed stars know that the train is braking right now and that they have to exercise their effect right now?

(2) How could the fixed stars, if they did know of the intention of the train driver to brake, exert their gravitational effect in good time on the objects in the train from their known distances of several, even hundreds of light years without any time delay?

(3) How could the fixed stars, which are located in all directions and as a consequence exert their effects from all directions, apply their gravitational forces so selectively that they make the objects in the train fly precisely in the direction in which the train is driving, and why not sideways, for example?

(4) What effects do the gravitational forces of the fixed stars have on the freely-moving objects in the train when the train is not braking?

(5) In which direction do the supposed gravitational forces of the fixed stars exert an effect on moveable objects and on buildings with fixed locations on the earth, right next to the braking train? Where are effects observed?

The assumption of the equivalence of a braked earth would already be refuted by all trains that are not driving in a precisely easterly direction, because the inertial effects in the trains is exerted in each case in the random directions of their motion, whereas the inertial effects from a braked earth could always only be exerted precisely in the easterly direction, and effects in various directions cannot be regarded as equivalent.

The gravitational field of the fixed stars is real, but selective effects in the services of the world of relativity are a fiction.

Lenard, Philipp: [contribution to:] Allgemeine Diskussion über die Relativitätstheorie; (86. Naturforsch.- Verslg. Nauheim 1920, 19.-25.9.) In: Physikalische Zeitschrift. 21. 1920, No. 23/24, pp 666-668.