

The great Michelson & Morley, Lorentz and Einstein trap

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Abstract

Thinking in terms of the Michelson & Morley experiment, the Lorentz interpretation and the Einstein interpretation brings us inevitably to wrong results. To that conclusion I come in this paper by analyzing the null result of the experiment, which brings me to the inevitable assumption : the aether drag velocity to (measurement-) objects is always zero. First we analyze this assumption and its consequences to the velocity of light and to the aether dynamics. A direct consequence is : the velocity of light to (measurement-) objects is always c . Furthermore, aether drag is not universal as believed around 1900, but object-bound.

We come to the conclusion that any theory based on a non-null result of the Michelson & Morley experiment, like the Lorentz contraction or the Special Relativity Theory (SRT) must be fully based on wrong ideas. The invariance of the Maxwell Equations to the Lorentz contraction term should not be seen as a confirmation of the validity of SRT but rather as a confirmation of the validity of gravitomagnetism.

Key words : *gravitation, gravitomagnetism, gyrotation, Lorentz interpretation, Heaviside-Maxwell analogy, Michelson-Morley experiment, Trouton and Noble experiment.*

Method : *analytical.*

1. The Michelson & Morley experiment, the Lorentz and the Einstein interpretation.

Never in the history of science, a null result in an experience was able to transform the outcome of science during a whole century. Michelson and Morley tried to measure the speed of aether of the Earth. Also Trouton and Noble tried to do so by using a parallel capacitor that was supposed to follow the aether's drag orientation. Also with a null result.

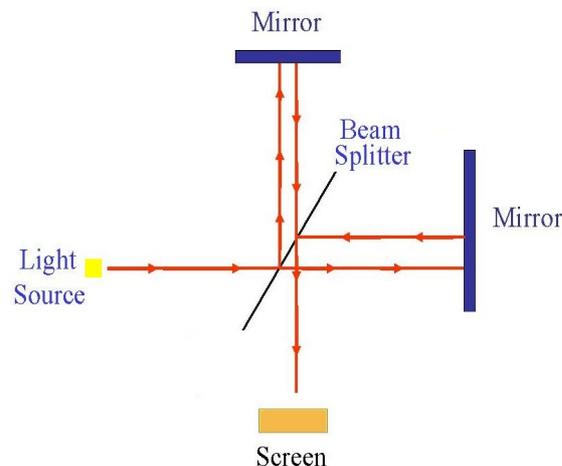


Fig. 1.1. *Scheme of the Michelson & Morley experiment.*

The Lorentz interpretation that resulted in the believe that distances are shortened in the direction of the aether flow, is well known. Also known is the Einstein interpretation that included the constancy of the speed of light and the conservation of the total energy, and that resulted also in the elongation of time in the direction of the aether flow.

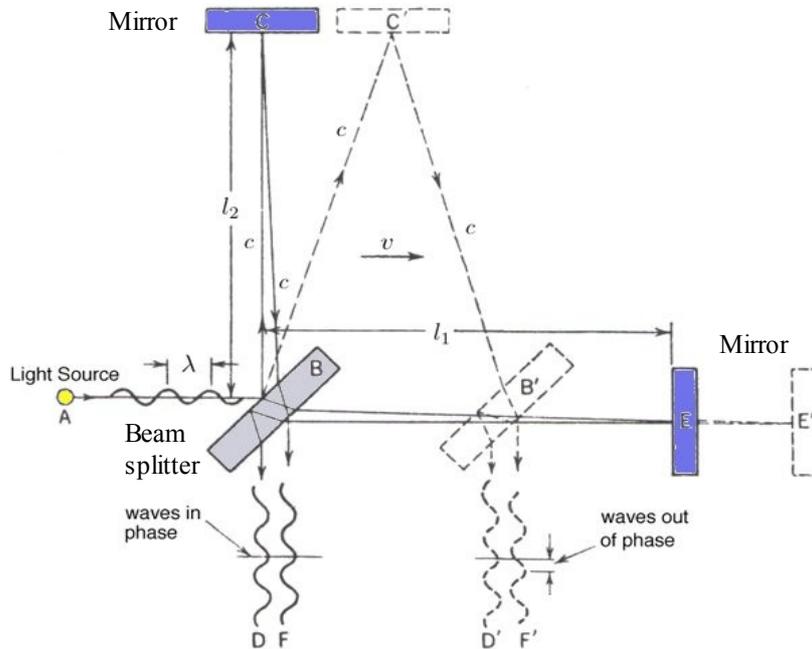


Fig. 1.2. Scheme of how the non-event (null-result) of the Michelson & Morley experiment became an event (non-null result) out of nothing.

Again, what inspired scientists to make up a whole theory, lasting for a century, based on a null result? The fact is that everyone at the end of the 19th century was indoctrinated by the believe that the Earth was traveling through an absolute, universal aether. And, those experiences were used to find out how much the aether drag really is.

But what would the theory have looked like if that indoctrination wasn't existing?

2. A null result means : a null result.

A null result means : a null result. Aether has a velocity zero against the Earth. And the null result occurs for all possible setups of the experiments and for all kinds of experiments that want to find the speed of aether.

One might say: but *if* the aether were moving, what would then happen? We then come in a world of idealized physics, just like Plato did. And that was 2500 years ago. That is the world of the thought experiments, made by people that believed they could outmaneuver nature itself. Don't fall in this trap. Never! Prefer not to know it instead of imagining things. None of the scientists that made up or nourished, during a whole century, such unscientific and megalomaniac theories, out of a non-event, merit any pardon.

When we get a null result for the Michelson and Morley experiment and for the Trouton and Noble experiment, there is no other choice than the outcome that the drag speed of aether is zero for the Earth and for the measuring devices that were used. It is no coincidence that for any measuring device, the null result occur. This leads us to bring up the following generalized result of the experiments.

To any object whatsoever, the aether drag velocity is zero.

Since the speed of light is always measured as being c , this makes sense. I mean that if the aether's drag velocity is always measured as being zero, the velocity of light should also be measured as being c .

We can even say that the speed of light is always c if we compare it to 'its proper' aether. That is, whatever the speeds of several object are, the speed of light will always be c for each of the objects! Thus: consequence one:

The speed of light in its aether is always c .

Isn't this the same as what Einstein said? Not quite. We see that the consequence of the assumption is that aether is not an absolute, universal aether, as was believed at the end of the 19th century, but a local, mass-bounded aether. Because for any body, the aether speed is zero and the speed of light is c .

The only possible outcome to make these issues fit, is to account for a fluid-like aether. The latter guarantees that light will always travel at the same speed c against 'its own' aether, and only be refracted when passing from one to another zone of the aether, where theoretically slightly different densities may occur. This refraction guarantees also that there will not be any loss of light. Reflection is not an option for light through aether with slightly changing densities. Only strongly differing media allow for reflection. Thus, consequence two:

Aether behaves like fluid dynamics.

How exactly does aether behave and what are the consequences for light? This has to be investigated by setting up experiments. But the main issue for such experiments is the presence of the aether of the Earth, which will overwhelm the other aethers. One of the most discussed items in the past was the description of the transformation between relative systems, the simultaneity of events and the twin paradox. These items again are false issues, because they are created from thought experiments, based on a null-result experiment.

And if one says: "but *if* we want to know simultaneity, how to manage that?", we have to get back to gravitomagnetism, that solved so many cosmic issues up to now.

(see: <http://wbabin.net/papers.htm#De%20Mees>).

The first things to realize then is that (see my papers "Did Einstein cheat?" and "On the Origin of the Lifetime Dilation of High Velocity Mesons"):

1. there is no proven mass increase due to velocity. Instead, a gravitation field increase occurs.
2. there is no proven time dilatation due to velocity. Instead, a cylindrical compression occurs; clock systems can be delayed differently, depending from their mechanism.
3. there is no proven length contraction due to velocity.

However, a certain length contraction is expected by gravitomagnetism.

One issue however cannot directly be solved by gravitomagnetism : the fluid dynamics of aether. It should be associated to cosmological reasoning and to experiments.

3. Conclusion.

When analyzing the non-event of the Michelson & Morley and the Trouton & Noble experiments, it is clear that 1°: to any object whatsoever, the aether drag velocity is zero, 2°: the speed of light in its aether is always c , and 3°: aether behaves like fluid dynamics.

The astonishing change of these non-events (null-results) into events (non-null results) by scientists is unworthy and made themselves irresponsible. It also persevered the wrong idea of a universal global aether drag. The mislead became even more underhand in SRT by denying the need of an aether.

4. References and interesting literature.

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