

# The Third Option

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Binary logic, excluding the middle, has produced binary computers, but also contributed to binary thinking in the western world, for instance in politics. An important example is the long, long debate regarding the ether. The question: is there a reference frame for the propagation of light? This question seems never to generate a third option. A possible third alternative could be: yes, there is a kind of reference but this reference is not a frame, but a **field**. Einstein seems to have indicated something in that direction by stating “there appears to be an infinite number of frames”. This idea points in the direction of a velocity field defining a specific state of motion for every point in space – an ether wind. This means a kind of third option.

Since this ether wind must explain the high precision in the spherically symmetric GPS system, and also the spherically symmetric force of gravity, we have a strong reason to suspect a spherically symmetric ether wind. In other words: a radial ether wind, or a falling ether. Fatio has presented an idea of this kind and motivated this by a mechanism of very small and very fast particles moving in all directions. When this flow of particles is passing our planet, the flow is slightly reduced, and this means that fewer (or slower?) particles are leaving our planet in relation to the number of approaching particles, explaining gravity. This hypothesis was ignored by Newton, who had no mechanism. So, his idea was just mathematical idealism. Newton was famous and Fatio was not. Therefore, Newton was accepted.

Gravity has a property to produce bodies of **approximately** spherical form. For **exact** spherical symmetry we can see that the two theories give the same result. However, Fatio’s model does not **demand** such symmetry. Therefore, we can conclude that Fatio’s model is the **real** thing and Newton just gives an approximation to Fatio’s model. So, we can say that gravity is hiding its functionality by producing spherical forms. Newton did not see that.

Newton’s model is much easier to use. However, Fatio’s model explains more and has therefore a theoretical advantage. Another advantage is that Fatio’s model has the capacity to explain the phenomenon called Allais effect. Newton fails to do that.

The behavior of atomic clocks, when they are transferred from Earth to satellite orbits, can now be described by only one model instead of SRT plus GRT. Instead of SRT we use the satellite speed in relation to the ether,  $v=3.87$  km/s. Instead of GRT we use a radial ether wind equal to the escape velocity,  $v=11.2$  km/s near Earth and  $v=8.1$  km/s in the satellite orbit. We get the same predictions as SRT and GRT together if we assume the clock frequency to depend on ether wind as  $f=f_0(1-v^2/2c^2)$ . Such a dependency can be reasonable, since bound electrons move forth and back in relation to the ether wind in one dimension of two. So, we can see that we can have a clock dilation **instead of dilation of time**. So, we can explain with **one** model instead of two.

Time dilation was caused by a wrong interpretation of light behavior in the transverse arm of Michelson and Morley’s interferometer. No effect in transverse arm is easily seen by regarding the fact that the distant mirror produces a virtual image of the light source at the doubled distance. This image is fixed in equipment frame. Returned wave front has fixed orientation. So, **c** is fixed in equipment frame, and therefore **no effect of ether wind** inside the wave front in the transverse arm. In other words, we can state that **c** – not **c+v** – should be used in the law of light reflection in a mirror. This follows from the fact that the mirror is transparent to **v**. We need **the ether**.