

Review of: "Sfarti's Reply to Dingle's Clock Puzzle "Disproof""

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Potential competing interests: No potential competing interests to declare.

Dear Author, David Derbes,

The merit of your approach is that you present both qualitative and also quantitative arguments.

I find interesting that you care to consider Dingle's work. Certainly, as you say, attacking relativity to show it wrong, without strong arguments, is probably a lost battle.

Still, arguments such as those of Dingle did not maintain their original grip, not to say they are obsolete. As far as I know, today there are in literature much stronger arguments than those of Dingle that are used to show the weakness of relativity. Perhaps, it would be more constructive to discuss these stronger updated arguments, rather than the ones of Dingle.

In his Review to your work, Erasmo Caponio says: "I hope that this platform, Qeios, does not become a haven for anti-relativists." I hope the same and also hope that Qeios does not become a haven for relativists. Furthermore, I hope that Qeios can be taken as a platform where we can advance and, through rational discussions, reach a consensus. For this purpose, we need to leave behind prejudices. So, nobody belongs to the "fringe", to begin with.

About Dingle's argument against relativity, that the theory presents the contradictory results $t=\gamma t'$ and $t'=\gamma t$, I agree with you. Technically, Dingle's argument is weak and, as you show, can be rebutted. Nevertheless, in my opinion, what Dingle and other detractors of relativity are trying to express, is that there are aspects of the theory that go against physical intuition. And, without physical intuition, we do not know whether we are describing a physical or fictitious reality. Of course, there are experiments, but, as discussed below, they are not taken into account when they seem to be disproving the present paradigm.

Concerning Arzelies' statement: "...the two groups [physicists who do or do not believe in relativity] presumably possess somewhat different mental structures; what is obvious and very clear for some, is obscure and absurd for others...", I believe that, more likely, the two groups have different information and knowledge about the theory, besides probably possessing quite different skills and interests.

About the knowledge of the theory and its present status, after more than 4 decades of research, I can only inform you that the interpretation of special relativity has been changing considerably and the great majority of physicists is unaware of it. Today there are specialists thinking that the one-way light speed is conventional and that the Lorentz transforms can

be based arbitrarily on relative or absolute simultaneity. Nevertheless, updated research indicates that light speed invariance is questionable, as standard special relativity fails in interpreting consistently the Sagnac effects, circular (1913), linear (2003), and reciprocal (2023). This is what I consider to be the present crucial controversy about the standard theory: As the Michelson-Morley experiment disproved the Galileo transforms before the formulation of special relativity, the Sagnac effects are doing the same today with the Lorentz transforms.

More information can be obtained from my recent Qeios paper:

“ Paradigm shift in Special Relativity: From the Michelson-Morley experiment, Lorentz and light speed invariance, to the reciprocal linear Sagnac effect and conservation of simultaneity “

The content describes the development of the serious questioning of Lorentz and light speed invariance by renowned physicists, as Sagnac, Selleri, Landau and Lifshitz, Lundberg, Field, Gift, Kipreos and Balachandran, etc.

I revised carefully in literature the various rebuttals to Sagnac's claim that his experiment invalidates light speed invariance. However, I can say that the rebuttals of the supporters of standard special relativity are, in comparison, even weaker than those of Dingle.

I am quite open to consider serious scientific technical arguments (not mere opinions) showing whether standard special relativity can, or not, interpret consistently the various Sagnac effects.

Best wishes for your research.

Gianfranco