

A NEWTONIAN DUPLICATION?

Einstein's Triumph a Long Distance Ahead, Says Dr. Houghton.

To the Editor of The New York Times:

While there is no desire to belittle the editorial of this morning's TIMES entitled "Einstein's Triumph," still it appears to one who has followed some of the literature concerning this subject—if that is possible without knowledge of the mathematics of it—that the time is still not yet ripe either to conclude that Einstein's theory is correct or that Professor Einstein should receive much credit for calling something by a different name from that by which it has been previously designated.

I cannot see that Dr. Campbell's observations prove more than one simple fact, viz., that light rays do bend at a certain angle when they travel within the sphere of influence of a material body. That fact has been known for a hundred years and over, and if I have understood the writings of Reuderahl, who is himself an eminent physicist, there are two things which must be kept in mind in the interpretation of Dr. Campbell's work.

First: Is the phenomenon which Dr. Campbell just observed to be best explained by the Newtonian law of gravitation or by Einstein's theory of relativity? In this matter there does not seem to be any doubt but that Einstein and his formula have come under suspicion.

In the news columns of the same issue of THE TIMES (this morning) Captain T. J. J. See, Government Astronomer at Mare Island Navy Yard, gives the facts which were originally brought out by Gehrcke of Berlin and Westin of Stockholm, and in plain English by Reuderahl in this country. Von Soldner's formula, now one hundred and twenty-two years old, is exactly the same as Einstein's. Einstein's writings make no mention of it. Von Soldner's formula was based on the Newtonian theory of gravitation. If the bending of light rays can be predicted with such precision by the Newtonian theory, why elaborate another? It uses the same formula, and the newer one postulates conditions which are disturbing in the explanation of natural phenomena in other fields. Perhaps there may be something in the remark attributed to Sir Oliver Lodge, that the theory of relativity is "an attempt to introduce Bolshevism into science." We may believe that Sir Oliver might be mistaken when he enters the sphere of spiritism, but it must not be forgotten that he is one of the world's great scientists. In any event, it appears incontrovertible that acceptance of the Einstein theory simply substitutes "Einstein" for "Newton."

Second: If it can be shown that the best explanation for the behavior of light rays under given conditions is to be found in the Einstein theory, does that prove the Einstein theory?

By no means! This point should be made very clear to all who are interested in this subject. Reuderahl is correctly very emphatic on this point. It is absolutely unallowable to argue "from a particular to a general." If, as said above, light rays do bend under given conditions and in certain angles, and the explanation is best found according to the ideas of Einstein and his formula as distinguished from the Newtonian theory of gravitation, it simply proves the Einstein theory of relativity in that particular instance and nothing more. It is not necessarily applicable in any other particularization. If it does not apply in explaining the behavior of light under such conditions the whole theory falls anyway.

Therefore, it appears that Einstein's triumph is a long distance ahead. In any event, as I am finishing this letter, Professor Michelson's interview comes to hand. I find myself quite in accord with his conclusions, viz.: That much more work must be done either to prove or to disprove.

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