

Review of: "Representations and Implications of Papers Written by E.T. Whittaker in 1903 and 1904"

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Potential competing interests: No potential competing interests to declare.

Reviewer's comments for the paper entitled:

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By : Mark Titleman

If Whittaker's ideas have been met with neglected by scientists compared to better alternative models and have not received special attention, I think it is mostly because of the limitations imposed on it as pointed some of them by the author in this paper. As we know, any theory must have several important features for its survival: 1) have at least basic principles. 2) it must have ability to describe experimental phenomena which previous models are unable to explain, 3) have predictions for future observations, 4) to follow Bohr's correspondence principle, that is, to cover earlier weaker theories in simplification in special conditions. It is obvious that Whittaker's model do not cover these minimums. In Einstein's theory of general relativity, which is based on two principles ((general covariance: independency of physical laws from local coordinates)) and ((weak equivalence principle: there is a local free falling observer which from point of view of his/her the curvature of the space-time is removed such that the free falling observer obtain flat Minkowski space)), it has almost all the above 4 features, and it is given in scientific texts and there is no need to explain here. Therefore, to give credibility to Whittaker's model, it is appropriate for the author to show the superiority of Whittaker's model by giving practical examples such as the bending angle of light passing by the sun and comparing its prediction from Whittaker's theory with its prediction by general relativity, as this is done by other alternatives such as the Brans Dicke scalar tensor theory is carried out and its superiority over general relativity is shown, where Mach's principle is introduced by a scalar field describing a variable Newton's `constant`. In the Brans Dicke model, there is a self-interaction parameter of the Brans Dicke field that adjusts the correction factor for the angle of light deviation or the perihelion point displacement of the Mercury planet. All the examples given by the author in this article are meant to be objectively proven, similar to an mathematical exercise, in order to understand the superiority of Whittaker's theory in accordance with the Einstein's theory of general relativity or any other alternative theories. However, currently non-linear Einstein Maxwell gravity theories have been presented, such as the theory of Ayon Beto García or the Bardeen gravity models, which give non-singular black holes for central regions of the galaxies. They are useful in the study of galaxies behavior and the explanation of the comprehensible behavior of the central part of galaxies as nonsingular black holes, are usable.

Sincerely yours

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