

## Essay 45: The Future of General Relativity

Ockham=s Razor of philosophy requires that the simpler of two theories must be chosen, and this applies above all in natural philosophy, or physics. The findings of the last essay 44 and of UFT 193 mean that lagrangian dynamics are preferred to general relativity when calculating the force law of attraction in the solar system and all cosmological systems, in calculating light deflection due to gravitation, and the time delay due to gravitation. Furthermore, contemporary scholarship has proven that Schwarzschild was perfectly right in pointing out that Einstein=s calculation of the precession of Mercury is incorrect. Many thinkers have questioned the need for general relativity throughout the twentieth century. The worst aspect of all that are those blared out precision tests said to bring up numbers to ever greater precision using a theory that is now so easily shown to be complete nonsense. The astronomy data seem to be getting more precise, but there are hidden assumptions in those data too. For example it is little known that the mass of the sun  $M$ , or any object in astronomy, is not known with precision, and that the Newton constant  $G$  is not known with precision. What IS known with precision is the product  $MG$ .

The only thing left of general relativity is its ability to produce time dilation modified by curved spacetime, and its ability to reduce to special relativity and Lorentz covariance in a limit of general covariance. It also appears that general relativity is needed to produce a unified field theory such as ECE theory. It may be that gravitational time delay calculated by lagrangian dynamics can be used to calculate time dilation modified by gravitation. Then all that would be left of general relativity would be its philosophical ability to reduce to special relativity. That is not a very satisfactory outcome of a hundred years of work in physics, so the only scientifically valid aspect of general relativity would be its use in ECE theory, a unified field theory.

It is possible to use general relativity with the right  $m(r)$  function to describe all the phenomena usually attributed to Einsteinian general relativity (EGR), but that is a more complicated way of describing light deflection and time delay due to gravitation than lagrangian dynamics, and therefore not satisfactory when Ockham=s Razor is adhered to. When the correct  $m(r)$  function is used, time dilation in curved spacetime is nothing like EGR, it depends on the cosmological object or system being studied, for example it is very different for solar system and whirlpool galaxy. Also, it is not known at present whether time delay and light bending by gravitation are consistently described in general relativity.

It is becoming ever clearer that something very strange and dishonest has been happening in the subject for a number of years, so that all it can do now is to repeat incorrect dogma endlessly by using media reporters. Judging by the great interest in ECE theory, and the complete absence of any criticism of ECE theory by honest scholars, only a very few of these dogmatists are left in the world. It is certainly true that the general public does not understand what they are talking about, and never did. The general public is able only to recognize one name: Albert Einstein, but knowing nothing about his work, and not ever reading it. This has greatly damaged science in a century when we all thought we were enlightened.

Einstein happened to have been a good scientist in other fields of work, but not as good as we are being made to believe. He could be self critical but contemporary scholarship has revealed some things about his work that are very obscure, as if he was forcing his theories on nature. The suspicion is that he deliberately contrived some results, relying on his reputation and confusion to get away with it. That is always a danger in science. He did explain Brownian motion and contributed to early quantum mechanics, but now it is known that these early quantum mechanics too contain a flaw, they did not use

conservation of momentum correctly. Much of the twentieth century in physics can be summed up in the same way, forcing theories on nature in various indescribably obscure ways.

I think that general relativity is still needed because of the Lorentz transform, which is the basis of special relativity, the ECE equations though show that electrodynamics are generally covariant, not just Lorentz covariant. However, some aspects of special relativity still remain intact. An example is time dilation, another is the fact that the equations of electrodynamics are not galilean. Even there though there is a lot of uncertainty, debate and questioning. That is how it should be of course. Peter Abelard could have told us that in the twelfth century, and yes he was condemned as a heretic. So was William of Ockham.

Careers and money depend on dogma, as in the twelfth century. Then it was a church career, now a university career, becoming indistinguishable from any political activity. There is no difference in the underlying human failing.