

A REFUTATION OF CHRONO-CENTRISM AND THE ASSOCIATED *RIDICULOUS* MULTIVERSE

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Current cosmology introduces seriously the assumption that the Universe would be an infinitesimal part of a Multiverse, containing a variety of inobservable universes. What is the origin of such a non-scientific theory, so contrary to the old tradition, which reject what can be not tied to observation?

It is evoked by the French Academy president (2005) "*Does the physical laws can be unified ? The natural constants, light speed (c), Newton constant (G), de Planck (h) are there due to hasard or tied to an unknown principle ? Some theoreticians introduce our universe in a multiverse, composed of a number of universes which have no reason to be the same as our universe.*"

So, the origin of the Multiverse is this incredible justification: being not able to find a mathematical origin for the natural constants, the scientific community suppose that a number of universes use all the value combinations. This means an elimination of the difficulty by evoking hasard, an old non-scientific tradition. These natural constants would result from hasard, which would be, in our universe, favorable to life. So, the so-called 'free parameters' would be not completely 'free', but tied by an anthropic fine tuning.

Now, an elementary dimensional analysis, excluding c (indeed this speed is far too slow in the cosmic arena, making the classical 'horizon problem', officially resolved by the ad-hoc inflation) relies the above constants to the so-called universe age, now estimated by the Planck mission (March 2013) $T_{Pl} = 13,80$ milliards d'années, with an imprecision of 40 millions years, by the following formula for the associated radius, which show an atome-universe symmetry (F.M. Sanchez, Current Issues in Cosmology, Ed. Pecker et al, CUP 2006, p. 258):

$$R = 2\hbar^2/Gm_e m_H^2 = 13,81 \text{ billion light-years}$$

This length, implying the electron and Hydrogen masses, shows up in all the astrophysics textbook: it is the limit radius of a star when its atomic number goes to one (Paul Davies, 'The Accidental Universe', CUP, 1982, p. 50). Moreover, it is justified by a **Coherence Principle** ([viXra.org/abs/1401.0223](https://arxiv.org/abs/1401.0223)), which replace the inflation by a inflation-deflation oscillation (10^{103} Hz), in the simplest cosmology, that of Bondi, Gold and Hoyle (1948), which depends on the only one parameter $T = R/c$ of the scale factor $e^{t/T}$. The critical condition is thus relied to the 'coherent energy', the common non-relativistic value of the kinetic and gravitational energy of galaxies, which is very close (0.13%) to the Eddington Energy, corresponding to 136×2^{256} Hydrogen atoms.

An elementary galilean calculation gives a relative value 3/10 for this coherent energy (tied to a dark matter to be defined), and a baryonic one $(0.3)^2/2 = 0.045$. Thus, two of the six free parameters of the critical model Λ -CDM become trivial. Moreover, this T value connect, in the G precision (10^{-4}) with the period 9600.6 s of the *non-Doppler* cosmic oscillations. Such an 'incredible' phenomena is just too extraordinary to be considered by the scientific community.

According to the Anthropic Principle, we would live in this narrow time slice of 40 billion years, a chronocentrism which would recall the heliocentrism of middle age. Hence the time estimated by the Planck mission is not any universe age, but this single parameter of the simplest cosmology, which predicted both the exponential recession of galaxies and the background temperature.

The above formula (without the 2 factor which is irrelevant in dimensional analysis) was obtained in our first 3 minutes of cosmology reappraisal. It was presented to the French Academy which, in spite of its presentation by Pecker (1998 and 2013), rejected it, arguing that anonymous experts affirm the validity of current cosmology. While it is well-known that a refutation is an essential step in scientific progress, the Academy censor the refutation of a non-scientific thesis, this anthropic principle leading to the *ridiculous* Multiverse.