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Considerations over the problem of the knowledge of the Universe

day/dialogue third

The open cycle of the transformations of the mass-energy .

I will overlook from now on the fine argumentations over the climate , the economic problems , the cost of living the criminality the politics etc ... confining myself strictly to the theme and here is reported what happened during the third dialogue .

I can see , said P. looking at his notes , that you try to establish without possibility of doubt the existence of this impalpable substance unknown to our senses ,which results impossible to individuate directly, and to do so, since it does not reveals itself, although you respect the say "I see and therefore I believe" instead to say : " I do not see and therefore it does not exists " , due to the fact that the sight of it is denied to all of us, you try overcome the impasse by attributing to it, as effects and properties, phenomena observed that you judge must be connected to its existence.

Certainly, said I, rather than to give to the empty space the capacity to deform and I do not know what else when it comes to transmission of energy phenomena in the empty space, I am more inclined to try to individuate this substance through the observation of the effects that permit us to deduct its presence and the transmitting of a particular status called here "dissipation out of the physical mass of the m-e M_{Heat} as unfathomable particles SP endowed of spin", moving at a fixed maximum speed whilst absorbed by the ESF, but this is a thing that later on will be treated in better detail and precision since many speculations will have to be added to what has been presented up to now.

I notice, said P. again that in attributing to the mass, transformations that in many cases we are unable to measure directly but are measurable in terms of

energy and using the equivalence principle to evaluate what happens to the mass-energy in terms of these transformation, you transferred somehow the argumentation about existence of the ESF, to the physical mass, since, according to you, with the physical mass, (as a composite of different mass-energies) we are not only in presence of phenomena that usually we observe as sudden appearance of movement, chemical reactions and elastic deformations, whose properties we can see and make sure of but we are able (through the equivalence principle) to reconnect them to transformations-degradations related to the m-e happening inside the physical mass, with a sequence of cause and effect.

Whereas (still according to you) these phenomena (especially those of gravitational origin, if we deny that there is an internal phenomenon of transformation-degradation releasing the spin of the SP particles clustered together to give physical presence to a physical mass M) can be measured in terms of energy affecting a mass but we remain unable to justify the source of this energy.

Given the fact that we cannot look inside the atoms and measure what goes on inside them, we are in any moment unable to state that these transformations-degradations really happen, all the time, with a sequence of cause and effect, and remain blissfully unaware that they exist, unless with the assumption of the validity of the Law of equivalence we state that what we measure as energy is an effect bound to time and movement and measurable on the mass that can be related to an internal transformation-degradation of the spin character belonging to the SP which are the building blocks of the m-e and ultimately of the physical mass.

I agree I answered and this is the reason that presses me to point that behind all these equivalences between m-e in various states could be hidden the fact that the m-e is the only substance present in the Universe and if this results true the concept of transformation of it from a status to another following a Law of irreversibility and the sequence cause and effect, would become a necessity as would become a necessity the fact that the m-e contains the principle of its own continuous degradation since transformation is a natural consequence of gravity and the mechanism of transformation is built in the m-e as we will have reason to conclude further on when we will deal with the effects related to cyclical transformation-degradations and to the time retardations and advances that practically make unstoppable the emergency of these transformations in the neutron m-e contained as separate entity in the physical mass .

I must also add that at this point the presence of ESF becomes a necessity as well as the series of transformations that lead, through their irreversibility, to the result that the physical mass gets rid, in the form of dissipation, of this processed ESF after having transformed it into M_{Heat} and this must necessarily happen also when we cannot observe it and measure it (as is the case of small gravitational masses, see [Ruggeri14](#) Table 1).

When we mention that dissipation of the m-e M_{Heat} occurs, and the M_{Heat} in

coming out of the surface of the physical mass, loses compression of spin and transforms it into speed whilst absorbed (cannibalized) by the ESF moving in all radial directions away from the center of the physical mass, the cycle of the transformations-degradations is not over because what moves in the ESF is m-e equivalent to energy, and energy is something that if we capture and store the m-e from which it depends, can be re-obtained at a later stage, not only in the status that suits the natural world but ultimately in the status that suits us.

Furthermore when in the gravitational phenomenon occurring inside a physical mass, from gravitational m-e M_{RM} (neutron) we have transformation into inertial m-e M_{ESCE} (whose internal presence corresponds to unidirectional movement permitting a measure of kinetic energy in the mass affected and indirectly permitting us to fix the value of the Mass from the measure of the energy (belonging to it) and of the velocity, we have to suppose that the m-e M_{ESCE} transformed does not abandon the mass since our physical experience tells us that only M_{Heat} can flow out of the mass.

If a ΔM_{ESCE} is the only result of a gravitational transformation of a ΔM_{RM} inside a physical mass M and we deny that this is the cause of movement, to what can be ascribed the cause of movement?

P. I understand your point as far M_{Heat} is concerned and I know that you think to have found the solution to the cycle of transformation-degradation of the ESF through a form of cannibalism of the ESF that swallows in the fashion that we call dissipation and "digests" through dispersion what can be detached from the mass, but apart from the fact that I find objectionable the concept of "cannibalism" referred here to a substance that though is subjected to a chain of different transformations, seems to me pure and not subjected to loss of purity, I think that when mentioning the dissipation and dispersion you had your point, and could have avoided the expression "cannibalism".

I : Certainly I knew that the use of this epithet could have found objection but I was tempted to use it due to the fact that I had intention to refer to the ESF, in future, as if it were the mythological Saturn who swallowed his own offspring, to do so I did not follow the simple presentation since I wanted to put in it something else that would have captured the imagination.

Note: to be honest, indeed, something more in our conversation was added to this Saturn/ESF) and its own cannibalistic appetite that does not merely stops in the act of swallowing M_{Heat} from the physical mass, which sprung from him, and whose hunger not only devours the M_{Heat} developed by the physical mass through internal transformation but tries to absorb as much as possible from the mass since as soon through internal transformation a ΔM_{ESCE} is produced, it tends to absorb that too and not being able to do so in the same way it occurs with the M_{Heat} it absorbs this ΔM_{ESCE} carrying it away directionally together with the mass to which it is attached.

Note: in this endeavor the ESF is helped by the fact that ΔM_{ESCE} is endowed of Spin and therefore this is an interaction.

In conclusion this Saturn/ESF is fathering the mass and copulates with it producing in time a live and mobile offspring of mass-energies whose presence (through the principle of equivalence) can be measured in kW of energy, this offspring he tends to swallow, therefore tends to absorb not only M_{Heat} , after transforming it into SP, following an Universal Law of absorption similar to the gravitational one and a fixed rule of dissipation that is consistent with its physical capacity to absorb (at a velocity c of absorption) but tends also to absorb m-e that in the status of M_{ESCE} is tied up to the mass.

When this M_{ESCE} tied up to the mass is subjected to the absorbing influence of the ESF it produces the emergency of velocity on the mass which opposes its inert presence to the possibility that the SP endowed of spin of which the M_{ESCE} is made up reaches the maximum speed c .

The necessity that velocity had to come into existence in this type of absorption cannot be put into discussion since if the M_{ESCE} (tied up to the physical mass) were not absorbed directionally thanks to presence of Spin, there would not be absorption but only tendency to absorption and nothing to absorb (which thing makes a lot of difference since movement would not be developed and without movement there would not be M_{ESCE} but the same m-e endowed of spin would be present in another status, whereas the spin could not act and from which in many cases when enabled to act, either M_{ESCE} or dissipation or both could be derived through further transformations).

These therefore were the terms of my answer to which I added that is comfortable to admire the fashion in which the velocity is developed in the mass and that the m-e must have a principle (Spin) according to whom movement caused by absorption by the ESF happens in a predetermined direction since in this manner we are able to establish what happens to it and we are able to trace the M_{ESCE} as it is m-e that remains inside the mass, but I would not be able to say what the Saturn/ESF does with this mass-energy present in the mass as m-e in the form of M_{Heat} and absorbed from it as SP or dissipation, except to say that dissipation results dispersed and superimposed to the ESF as an indestructible ash originated by the ESF.

I really would like to know since I only know that m-e in this condition was called Entropy of the Universe of which they say that always is on the increase and of which I can only say that since is poured into a reservoir of infinite capacity it cannot increase the level of its presence.

We will see in future presentations, that as Saturn/ESF swallows this indestructible stuff, at the same time another physical mass (the Earth for example) , can use to its advantage the dissipation of a quantity of m-e when it happens to be on its path.

This phenomenon of absorption of the dissipation coming out of the Sun, uses part of it in producing transformation of m-e M_{Heat} into haphazard M_{ESCE} of the atoms (dynamism) belonging to a mass and physically evident as movement of the atoms of a gas or stores part of it inside a physical mass as a degraded form of M_{RM} or of M_{ESCM} forming bonds between the atoms analogous to the

bonds existing at nuclear level between the neutronic entities.

For the Earth (that is on the path of dissipation of the sun) this means that conglomerations of atoms of increasing complexity could emerge and when these conglomerations reached large sizes the super-macromolecule formed in this manner developed the capacity to effect their own reproduction.

The consequence is that life emerged on Earth and emergency of life processes feeding their dynamism from the m-e accumulated by other forms of life determined the development of living creatures interacting with the physical world on Earth (see [Ruggeri16](#)).

The physical meaning of this accumulation of mass-energy is a delay in the straightforward phenomenon of dissipation which permits the evolution of possible secondary paths of degradation until from the Earth, also the degraded m-e accumulated in this manner is again dissipated, (again absorbed by the Saturn/ESF, that by the way in the ancient myth was also representing the Time, which rules immutable all the phenomena of transformation-degradation, but I think fit to stop here, what I only want to point is that Earth , on its own ways, is the seat of many natural thermodynamic devices).

P: then you are opposing to the transformation-degradation happening through absorption of m-e ESF, by the gravitational m-e component of the physical mass at the start of the cycle (which transformation generates gravity through establishment of a gravitational field of depression and flow) a series of transformations-degradations of m-e internal to a physical mass M, that as last stage becomes M_{Heat} inside it, but being disconnected from M is dissipated or absorbed by the ESF when reaches the surface of M, and you say that this absorption happens through a flow that can be represented with the same rules related to the gravitational field, with the sole difference that the m-e absorbed from the ESF in this case is only inertial and the Spin character that the M_{Heat} possesses is totally developed and as such absorbed by the ESF (the Spin carries the m-e to which it belongs freed from its connection with the physical mass, at the maximum possible speed and does not need to carry the physical mass since by definition does not adhere to it anymore).

I : yes certainly but M_{Heat} not exactly is absorbed in the status of energy which is just an expression of its dynamic capacity over the physical mass, since is M_{Heat} as m-e that when released inside the mass M has a spin which results compressed in the interstices between the atoms and therefore still endowed of great consistency, and we can well understand that if the M_{Heat} were coming out of a star in the same status in which it exists and arrives to its surface , we would see it to move away from it slowly, like the oozing of a substance in the liquid status.

From the study of the phenomena of transmission, we have been made aware that the dissipation of M_{Heat} can be represented as a phenomenon that transports the m-e diluted c times at a velocity c constant and for this reason we must realize not only that the ESF absorbs M_{Heat} as m-e from the physical

mass but to do so transforms it first in a status in which its density is c times inferior and absorbs it in that status at constant c velocity so that when dissipation hurts an object on its way a string of m - e that in this new status has length c and density $1/c$ respect to the density of the m - e M_{Heat} , hurts in a second of time the surface of the object and is reabsorbed again as M_{Heat} (this is the main reason why the character of Spin belonging to the m - e was postulated , we will have more of it in due course ...)

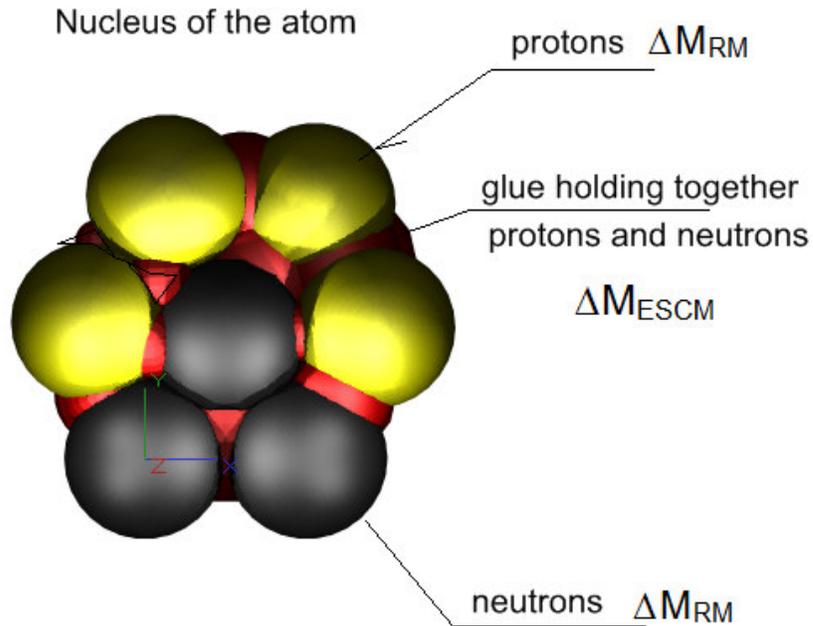
My answer pleased P. which with good stance admitted that he had overlooked that the new idea introduced here and having the purpose to explain the dissipation and the transmission of M_{Heat} through c decompression and acquisition of c speed was already well known in hydraulics since the time Daniel Bernoulli introduced it as an application considering transformation-degradation of hydraulic head into velocity of a fluid, nevertheless this case was different due to the fact that m - e was coming out from the physical mass and we had to consider the phenomenon in the context of the existence of a third basic status of the m - e and of the equivalence of an unit of m - e M_{Heat} compressed inside the interstices between the atoms of the physical mass, with c units of m - e in dissipation at c speed and that this third basic status could only exist diluted in the unit of volume of the ESF whilst moving at c speed under the full effect of a totally released spin.

P , now took over the concept and said : " you oppose to the transformation-degradation consisting of absorption of ESF by the gravitational mass, that explains presence in the ESF of a field of flow and a field of depression of the ESF which are at the base of the gravitational phenomenon and at the same time explains the first step in the cycle of transformations-degradations of the ESF into gravitational m - e M_{RM} followed by a second step in which is included the emergency of movement of the physical mass, another transformation in the other extreme of the cycle, that is also explained in terms of absorption and is cause of a field of mass-energy moving in a direction opposed to the one of the gravity, and you say that with it the cycle, so to say..., comes to an end through a dissipation (and dispersion) towards infinity, (a beginning and an end) and then you insert intermediate states of existence of the mass-energy, in which from a solicitation due to static Force caused by passage of the gravitational flow of ESF through a physical mass impeded to move, the mass goes on to develop other transformations when movement is allowed, and then, after a few more transformations-degradations of gravitational origin M_{Heat} produced internally to the physical mass, is released depressed and absorbed by the ESF.

I : exactly that, and although we struggle to accept these concepts once they become familiar they are capable to fill up the lack of causal continuity proper of the present scientism and many phenomena become easy to comprehend .

P: I like it and I will think about it.

This was the end of the third dialogue and one which gave us reciprocal satisfactions.



Note: M_0 represents the gravitational mass of the atoms deprived of movement (or "at rest") and is made up of:

$$\Delta M_0 = \Delta M_{RM} + \Delta M_{ESCM}$$

Note: for "neutronic mass" is intended the mass ΔM_0 made up by the sum of the masses of the neutrons and the protons

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