

Universal Science: Information transfers processes

Carles UDINA i COBO

cucobo@gmail.com

Partially translated to English by Eugene THIERS (SRI, 1941 – 2022)

Abstract

Although physicists are not yet aware, all dynamics, whether material or virtual, that is, all phenomena, are governed by information, be it explicit or underlying. Consequently, **not only** is possible a unifying theory posed for physics (today misnamed "*of everything*") **based on the Information, but it is also extensible to all phenomena**, those of life and those of the psyche, equally characterized by being controlled by the corresponding underlying information (genetic, psychic) and its progressive "**Information transfers processes**". This is the proposal of the "**Mathesis universalis**" or "**Universal Science**" intuited and searched by LEIBNIZ, already at the end of the 17th century.

UNIVERSAL SCIENCE

The underlying quantum Information of physics and the Information transfers between different systems, **both which is ignored by science***, is the only path to the desired integration of physics, as well as his integration with the life and behavioral sciences. The Processing Time of said quantum Information is empirical, and must be associated with the LORENTZ Transformation, until today erroneously associated with a supposed relativistic dilation of Time (externally observed). With these two dimensions of Time and the three of Space, five, the current inconsistencies of physics can be resolved.

* Without the *leitmotif* of information and its transfers, it is useless to try any "unification", as physicists have been trying in vain for almost a century. So they change its name to appear innovative and not accept its failure ("Four forces", their "Unification", the "Great unification" [GUT], Theory of "everything", ... and now the "Universal Consciousness", ...).

A "**Universal science**" is not a superposition of sciences, nor a pluridisciplinarity. It is a higher level of science that has as elements to all sciences, with its own methodology applicable to all of them. Without going into more detail here, this methodology is the **intrinsic** Semiology and **intrinsic** Semantics [nothing to do with current linguistics], the progressive "Information transfer processes" and "**Methodological elements transfer**" (basic and reiterated phenomena but also still ignored by science), etc., etc., etc.).

As a example of universal Science, through the cited transfer processes of information and of methodological elements between different systems, a "**Holistic Theory**" (a strict theory of "everything") can build that also provides **an evolutionary link** between the three different domains studied by Science (physical matter → life → behaviour):

- from the information underlying of the **physics**, was derived the information that governs **life** (genetic, immunological, hormones, ...), and
- from this, was derived the **psychological** information that governs human behaviour.

TRANSFER FROM LIFE TO BEHAVIOR

What is an instinct? It is a **behavior** (something governed by the psyche in higher animals) that is **inherited** (that is, **transmitted** as genetic information). It is unquestionable that, in each person, at some point there must be a transfer:

- from Information with material support (genetic information),
- to Information on virtual/ symbolic support (from FREUD and RAMON and CAJAL it is known that "materials" such as proteins do not circulate through the nerves, but rather signals, that is, symbols, that is, the psyche).

because it cannot occur to anyone to defend that our fast instincts and reflexes can be activated directly by the slow biochemical processes of some neural DNA. Our instincts respond to psychic information (which is fast), transferred in pregnancy, childbirth and imprinting of the genetic information (which is slow). See by the same author: "Los derechos de los niños ... 2009" <https://www.sistemaconceptual.org/pdf/BioCultura2009CAS.pdf>).

An important habitual confusion must be added, between psychic information and its material support, the brain (strictly the entire nervous system). Today it is something difficult to justify due to the omnipresent computer technology, where a clear difference must be made between hardware (analogous to the nervous system, from neurology and psychiatry), and software (analogous to the psyche, from psychology and psychoanalysis).

TRANSFER FROM PHYSICS TO LIFE

If the transfer of information "life → behavior" is unquestionable, then it can be argued that the information of life, genetics, results from some transfer of **prior** information. More than "can", it "must" be argued, since first of all science demands **causality**, something that **seems to have been forgotten**. The problem is that physics is **reluctant** to accept underlying information, despite all the evidence of its existence, to cite just two well-known examples, the "Entanglement" or the Quantum computing (for this reason I always say that physicists implicitly presuppose a capricious and pre-scientific God who put these impressive calculation capacities in the Particles so that for 14 000 million years they would be absolutely useless, until men ["made in his image and likeness"], discovered them and could start playing with it).

Luc MONTAGNIER's fortuitous 2009 discovery of the emission of electromagnetic radiation by bacterial DNA, provides the **unknown link** to explain how this transfer of the underlying information from physics to the genetic information of life was. Explanation that at your request, I conveyed to you in my letter from 2010-03-18 (see <https://www.sistemaconceptual.org/pdf/LucMONTAGNIERENG20100318.pdf>)

The electromagnetic emission of DNA is the **support for the information transfer** between the information supported by the molecular dielectric superstructures of water (the wrongly named, and at the same time argued "Memory of Water") and the genetic information of the codons supported by the DNA, which, at the same time, transitively communicates with the "Pre-material Information" of the "NullPunktEnergie", or "The Vacuum Energy", through the dynamic CASIMIR effect (manifested in nanodielectrics).

and allowed him to demonstrate this transfer of information in his 2014 experiment. The important thing about the origin of life is not its location, "where?", "from where?", which is circumstantial, but rather **the intrinsic**, the "**as?**", the manner.

TIME AND THE IGNORED UNDERLYING INFORMATION OF PHYSICS.

So, where does the prior information originate from which the following genetic and psychic information is derived? No doubt, from the Underlying information of physics, but surprisingly, I insist, it is still ignored information. And this is due to some misunderstandings about Time and its supposed "dilatation".

FEYNMAN is credited with the reflection "What is Time? Don't even ask that me, just thinking about it gives me a headache." As the sciences of the tangible is little concerned with psychology, one of the mistakes of Time ("**First mistake**", in this case, **epistemological**) is that it does not take into account that Time **is not** a concept (a Concept is a **cognitive structure** relative to the cultural), **nor for that reason definable as such**. Time **is a Perception**. Perception is a much more basic faculty. Structurally, Perception is located after the senses, and immediately prior to feelings (existing for millions of years), **very much** prior to cultural conceptualization (existing only for thousands of years).

If you want to better understand the above, you can consult the "Global Model of the Psyche", the "Knowledge Representation", and the "Characteristica universalis" (also due to LEIBNIZ) at: <https://www.sistemaconceptual.org/>

Since perceptions are simply perceived, not "definible", it is foolish to try. What we can do is define an associated metric concept: the "Unit of Time", but this is already something different. "What is love?" We can only say what a feeling is, or describe how it manifests itself to each one of us, but not "define" it strictly as a concept. And also in this case, love is very difficult to measure and/or comparable, there are not even "objective" references, since each person has their subjective and different scale of love. With the Time, at least we can refer to the sequences of repetitive and fixed material phenomena (oscillations,...). But, is there only one material reference of Time? Isn't there some other equally temporal reference?

The "Entanglement", in addition to implying the existence of underlying information beyond what we know materially, implies **immediacy** from our material perspective. That is to say, **there must be a Time scenario intrinsic** to the "Entanglement", **independent** of the material Time scenario of the oscillations of the clocks, **imperceptible to them**. There has to be information, it has already been said, but at the same time something temporary different from the material Time that we know.

It is not a simple "philosophical" disquisition. All the dynamics of physics is based on Time, but a **misunderstood** Time, because as has been said, it is not a concept but rather a perception ("First mistake"). And furthermore, we see that there is other "Time" possible than the traditional material Time ("**Second mistake**").

How is the double requirement of the existence of information and of another Time resolved? Is this an added complication? Quite the contrary, because they are two characteristics of the same process: it is about the processing of the underlying information, which requires its own Time (of processing), independent of the material Time that we know.

Processing for what? Well, if we talk about information, it will have to be for something, to be used, that is, to be processed. And precisely, said processing is what **brings causality to physics**, an unavoidable requirement in science, but as I have already said, physics has been forgetting... It is the information that **contains the intrinsic laws of physics**, that is processed to govern the **all** interactions, forcing their

compliance in all the matter. Some obligatory laws, which science tries **to simulate** with mathematical formulas.

Said Underlying information of physics and its processing Time, is it just a new hypothesis, or is it manifested empirically? Well, in addition to many other proofs of the existence of the Underlying information in physics, it turns out that it is **totally empirical Information**, since its processing speed **is even measurable** (provided by the well-known LORENTZ Transformation). And that also justifies the speed and trajectory of light/ photon.

All this is new, due to the erroneous but accepted belief that time is unique ("Second equivocation"). Only one time is admitted to exist, that there is no time other than the Time of our material Universe, the Time marked by our material clocks (extended Ptolemism).

UNRAVELING THE TIME (TIME AS A DOUBLE UNIT)

Our "Time (material)" does **not dilated, and time units are fixed**. The apparent "dilations" that are postulated from the relativistic measures, are therefore empirical and unquestionable, **only that they are not due to dilations of time units**, but are due to the superimposition/ irruption of **another "Time"** (of quantum/ pre-material origin)" which is the **variable/ dilator component of the total external Time**, the actually observed time.

A different pre-material and ancestral Time, of a different nature, that **is not directly perceived** by us, by matter, for what is **misinterpreted** as traditional material time dilatation. It is an **ignored component** of Time, because of the above **only is deduced by comparing** measured times by clocks in systems at **different** speeds.

$$t_{\text{total, externally measured, empirical}} = t_{\text{material (measured by local clocks)}} + t_{\text{processing}}$$

Time for what?: Time for processing the "**Underlying** information" of physics (such as the "genetic information" is the underlying information of life, or psychic information to our behaviors), whose processing allows to manage/ **calculate the dynamics** of energy and matter according to the "physical laws (intrinsic)" that must exist in our Universe.

A pre-material Time that therefore, when it acts with intermittence/ superposition, matter continues its dynamics but as wintering/ sleeping, without realizing it, while the rest continue exactly the same with their conscious and active lives. Nothing different from what happens to us on Earth. Which, in addition to correcting the supposed "dilation", said intermittence/superposition, also explains HEISENBERG's indeterminacy.

Its variability is due to the **different processing needs** at each speed, to control said dynamics. At **greater** speed, **greater** distance covered, **greater** the need for calculation of interactions and **greater** need for said calculation time, in each **corresponding** period of "Time (material)" of our perceptible Universe.

It is **wrong** to integrate with respect to "dt" in the set of MAXWELL equations and in **all** the current equations that are derived from them. It must be integrated with:

$$dt = "d(t_m + t_p)"$$

where " t_m " is fixed and strictly **only** " t_p " is variable and integrable. In turn, the "LORENTZ Factor" **is not a simple scalar**, but must be assigned shared **in function** of the involved masses, whose extreme case of elementary particles with negligible mass ($1/\infty$) with respect to the macroscopic observer, is the **only case** so far considered by physics. The "Factor", as it is interpreted today, is not applicable between the Earth and the Moon (mass ratio: $1/81$)*. Even less between the two stars of a "Binary Star System" if it could be measured ($50\%/ 50\% = 1$).

* Today only particles whose mass is negligible compared to the Earth reference are measured ($1/\infty$). So for example, in the atmospheric Muon, the LORENTZ factor equal to 20 due to its very high speed ($v \approx c$), it is correct to assign, entire, only to it. But between the Earth and the Moon, the factor corresponding to their relative speed cannot be assigned only to the Earth reference but only 80/81enth, and the remaining 1/81enth to the Moon. The day it is measured, it will be an unacceptable error for the accuracy claimed by physics. This, apart from the fact that in a Ptolemy attitude, no one puts themselves in the skin of the atmospheric Muon, posing what happens inside the atmospheric Muon. But we can already imagine us on the Moon, given the we have already been (but unfortunately without carrying or leaving atomic clocks to compare with those of the Earth, which today would confirm the error). In addition, from there, the unit of time will "**contract**" with respect to the Earth instead of dilating. It is the **absurdity** of the non-hemi-symmetric behavior of Time posed by traditional relativistic hypotheses: "if your clock is behind mine because you travel faster, you must believe, whether you like it or not —it is an **unquestionable but absurd dogma**— that my static clock is also behind yours".

With all of the above, the "Second mistake" is resolved.

UNIVERSALITY OF PERCEPTION

Time is a **subjective perception and not only for man, but for all matter**. Matter also has its own "subjective perception" which in this case is determined by the speed of each considered system. For example, due to its high speed (almost " c "), the Time perceived by the atmospheric Muon differs a lot (20 times) from the Time perceived on Earth (see the previous link).

For this reason, in physics the objectivity requires the sum of its two components, the material Time and the prematerial-quantum Time.

It is therefore necessary to **review the all geometry of current physics**. We not only have 4 dimensions but 5, 3 of the Space plus 2 of the Time. Ignorance of this fifth dimension, second temporary and linked to information processing and therefore virtual (but I insist, empirical) is what creates the contradictions, limits and singularities of current physics, restricted to the exclusively material.

This second time also **reconciles** the two times traditionally confronted, the "Absolute Time of NEWTON" (the material-fixed) and the "Relative Time of LEIBNIZ" (processing-variable-virtual). Ignoring said perceptual characteristic, and the validity of these two cited times, is the "**Third mistake**" about Time. So, there are **many things, and very basic ones**, that physics ignores about Time.

It is a **different hypothesis** (not imaginable a century ago without the current knowledge of information processing and its powerful automatisms), but **equally coherent/ consistent** with everything observed empirically. That is to say, it is a true hypothesis, and therefore a **strict theory** that **rectifies** errors and **avoids the limitations** of current physics.

In the **theoretical and predictive field**, in addition to allowing a **serious and real unification of all the natural sciences, in physics** it **would provide causality and**

avoid paradoxes, contradictions, "Singularities", "Renormalizations", ... And in turn, with this hypothesis:

- the two Relativities ("Special" and "General") are **elegantly integrated**,
- and these **with the Quantum**;
- explains the possibility of powerful Quantum computing;
- explains the interexchange of information in the "Entanglement";
- explains the "*miraculous*" "Energy of the vacuum" (**avoiding the infinite "Catastrophe"** of physical theories),
- the supposed dark part of the Universe can be clarified;
- gives **precedence** and **causality** to the BigBang; etc., etc., etc.

NOTE: These 5 pages summarize and update the 2004 and 2010 writings on the "Holistic Theory".

REFERENCES

- [1] Carles UDINA i COBO. "Information and Virtuality. Delocation. Singularity." (English, 6 pages, in pre-print)
- [2] Carles UDINA i COBO. "Informacion y Virtualidad. Deslocalización. Singularidad.": <https://www.sistemaconceptual.org/pdf/InformacionDeslocalizacionSingularidad.pdf> (Spanish-Castilian, 6 pages)
- [3] Carles UDINA i COBO. "Summary Information or Dilatation" (4 pages in pre-print):
- [4] Carles UDINA i COBO. "Information or Dilatation (Resumen)" (Spanish-Castilian, 4 pages): <https://www.sistemaconceptual.org/pdf/ResumenInformacionODilatacion.pdf>
- [5] Carles UDINA i COBO. "Information or Dilatation" (English, 21 pages in pre-print):
- [6] Carles UDINA i COBO. "Information or Dilatation (Resumen)" (Spanish-Castilian, 21 pages): <https://www.sistemaconceptual.org/pdf/InformacionODilatacion.pdf>