

“THE OBLIVION OF SUBJECT” IN PHILOSOPHY AND EXACTNESS AT THE PRESENT TIME: FROM PROTAGORAS TO THE THEORY OF CHAOS

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ABSTRACT. *Socrates - Protagoras' dilemma: the subjective or objective truth about the world, and ourselves, historically, has been "resolved" in favor of the "knowledge as a necessary and general one" (Socrates), and whose typical expression in our time is, for example, "theory of everything" (Einstein et al.), on which Stephen Hawking will say that it begins to speak of what God had in mind when creating the world. But more than two millennia after Protagoras, Kant will find that in every knowledge of objective reality, it necessarily completes just by what we ourselves enter into it, so that next with Fichte, Shelling, Hegel, ... it will be (gradually) built up a dialectical unity of subject and object in the knowledge.*

It has been extended after in phenomenalism, existentialism – until the postmodern period, and in the science in physics with Mach, Avenarius, ... i.e. in the theory of relativity, or quantum physics and, say, to the anthropic principle, which has highlighted the highest unity, or even a privileged place of subject in the cosmos. But the reality of human existence – allegedly too complex and beyond the superficial observations on it through history – remained to be almost a terra incognita, unruly for a possible (systematic) and exact researches.

Here we find that an undreamt power of computer hardware and software today, on which are based projects such as artificial intelligence or artificial brain, could be found in the service of invention of various models of human activity, such as asymmetric, irreversible, dissipative systems in the science of nature, and thus the "innate" powers of intuition and intellect of man to be done far more efficient means on the road of making sense of a human existence in the community of people.

KEYWORDS: *truth, subject, Protagoras, Kant, anthropic principle, chaos theory, software*

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πάντων χρημάτων μέτρον ἐστὶν ἄνθρωπος,
τῶν μὲν ὄντων ὡς ἔστιν,
τῶν δὲ οὐκ ὄντων ὡς οὐκ ἔστιν.

“Man is the measure of all things:
of things which are, that they are,
and of things which are not,
that they are not”.

Sext. Emp. *Adv. math.* 7.60

1. On Socrates vow: general, concepts ... as all the knowledge about the world

Between the slogan: “Man is the measure of all things” of Protagoras, from the dawn of philosophical thought in the West, in the sixth century BC and "the unifying theory of reality" (Einstein et al.), in our time, after two and a half millennia of its development, can we do more clear these determinants, drawing an (historical) arc joining them, both times speaking about the same? We have in mind primarily the problem of truth, in two aspects of it, namely whether it is (only) a "truth for us", therefore subjective in character, or it is a "truth at all", that is objective and how to achieve it? After Sextus Empiricus, for Protagoras it is "a truth in relation to someone, because everything that appeared, or seemed to someone, exists just in relation to him" [*Diels* 80 B]. And what would be later sarcastically commented by Socrates' remarks in the dialogue *Theatetus*, when he says, for example: "I wonder that he did not begin his book on truth with a declaration that a pig or a dog-faced baboon, or some other yet stranger monster which has sensation" [Plato 1892, 151 e]. After Sophists, as it is known, Socrates will – along with Plato and others – point the way to any future science "forever" in the way of *concept*, as something that is in everything or being always equal to itself, invariable and constant. Although neither he, nor Plato, fail satisfactorily to determine the concept itself in science, in what substantially succeeds Aristotle defining the essence of things and beings in a way of "nearest higher genus and specific difference." However, this time too it is yet about the deduction of concepts from each other (concept of species from a concept of gender), so in this way the (same) problem is only shifted from one to another instance. Afterwards if to those "real definitions" ("Water as H₂O") can rightly be objected, inasmuch it would be the case with the "nominal definitions" of John Locke ("Water as means for washing"), which make only recognizable a thing, without much going into its substance. Finally, the so-called "ostensive definitions" too testify, rather, about a necessity, but also about the inability to built some concept with purely rational means, and furthermore the rationalistic systems, as a rule, allow indefinable concepts and statements true in themselves etc. Moreover, insofar things and beings on which we have to build a notion vary in complexity, so that every general, as common method in this way can only more or less meet this need. Therefore, if, say, we succeed to achieve sufficiently unambiguous definition of circle in the plane, it is not the case with the concept of set in mathematics, because it

occurs contradictory in itself (Russell's paradox, etc.). And what especially would be the case with living organisms (flora and fauna), as well as with various "dynamic process" 'in nature, characterized by a high and highest level of complexity, so that the knowledge about them could be extremely difficult to achieve in a concept. After the case of meteorological changes, epidemics, growth of population etc.

For in following Socratic vow the knowledge in sciences, as such, must be necessary and general and, in addition, achieved by rational means in the experience, we implicitly follow a philosophical assumption that the "human spirit and nature are made for each other" (Schelling), where the "nature is visible spirit, and the spirit invisible nature" (*ibid*) etc. While another expression for it would be the statement that the experience and power of intellect suffice to realize an objective, complete and consistent picture of what surrounds us, as well as of ourselves. Schelling will emphasize the thesis as well that "nature begins unconsciously and ends consciously" etc., so that, say, in the cosmology of the twentieth century has been postulated the so-called "anthropic principle", according to which the universe itself too possess properties belonging to the observer, because if it were not be the case, there would be no observer. We are, therefore, able to follow only those processes in nature from our unity with it, while (all) other possible of them pass without an observer, just because our being is immanent to the universe, as well as all natural laws belonging to it. All this points to a "hidden" evolutionary course in it, which lawfully has "generated" humans, so that, according to Tsiolkovsky, "the world known to us, cannot be in no way different", as laws belonging to it would be only those and no some others. And insofar as the biocosmologists will find that (only) slightly different value of the cosmological constant would thwart the very appearance of life on earth, and that it would not necessarily appear in any other circumstance. Thus one has arrived to the two versions of the anthropic principle, the weak and strong one – in the first case: that our position in the cosmos is inasmuch privileged as it is consistent with it, and in the second: that the basic factors in the cosmos are such that they necessarily had to allow the emergence of human on one of stages of evolution.

In terms close to it has spoken quantum physicist Niels Bohr too claiming that no one phenomenon in nature can be taken to exist if it is not perceived, as the elements of a biocentrism we meet in Eastern teachings, in Aristotle (*anthropomorphism*), Leibniz (*pre-established harmony*), Spinoza (*psychophysical parallelism*) etc. For instance, in the *Vedas*, Upanishad says: "I am all these things in their totality and outside of me there is no other things", and the poet Byron: "Are not mountains, waves and skies a part / of me and of my soul as I of them?" Man's subjectivity is, by that, a certainty "released" by the evolutionary course, (highly) complex, in fact, as a phenomenon, not random and arbitrary, but consistent with the world being and lawful. However, from Socrates onwards the "subjective truth" – as something "relative" and "contradictory" in itself – has lost all meaning, as Plato has based the knowledge on the eternal and unchangeable essences, on "ideas", because only they make possible objective, necessary and universally valid knowledge. In search for, say, the idea of beauty in the dialogue *Symposium*, it will be for Plato "a wondrous vision, beautiful in its nature" or by words of Diotima: "something that is

first, eternal, and that neither the station nor wither, nor is multiplied nor disappears; then, what's on the one hand good, the other bad; even today, nice, and not tomorrow; not to this beautiful, and according to the ugly; not nice here, and there ugly, as if it were only for one good, and for another ugly. One more thing: it will not be this beauty to show as a kind face, not like a speech, not as a kind of knowledge; ... But as something in itself and with him biased and forever ..." [Plato 1951, 210-211]. And that "wondrous beautiful" is Platonic definition of beautiful, to what he bows from the beginning, and what makes possible the beauty to everything which is beautiful as individual (beautiful face, beautiful speech ...), although the later is variable and transient, and the first one eternal and constant. But: "the beautiful face", "the beautiful speech", ... are without doubt something that *really* exists, while "the idea of beautiful" – as a *concept*, or a *notion* of beautiful – is a rational creation to which does not belong a real, but only "ideal" existence, in a way of an abstraction in our mind. From Socrates–Plato, then, onwards all knowledge in the sciences is based on concepts, and since these convincingly argued that there is a "virtue in itself", "beautiful in itself", "good in itself", ... constituting, in their sum, a different "reality in themselves", for which up to Protagoras, and along with him, no one suspected to exist and to be of a substantial significance.

Because for Protagoras, Parmenides, Heraclitus, Anaxagoras, ..., for poets and drama creators, from the archaic period of Greek culture, particular and general, nature and our life in it, human and divine beings, were "one and all", integrally and indivisibly, and when the myth, say, came to express such "monolithic" picture of everything that exists. And in that one and only one world, as "world for us", the gods features as well were just human features, although "expressive" in character, and gods helped man, while being appealed for help and so on. In truth, a particular, virtuous life of citizen is what occupied Socrates as well, but he conceived it from the point of view of a "man in general" – which, otherwise, does not exist – from an universal point of view, and since he announced that "virtue is equal to knowledge" and that it should be distinguished from opinion, because it is contingent and variable, and the knowledge general and necessary. Therefore, even Protagoras remark: "... and of things which are not, that they are not", from his famous proposition: "Man is the measure of all things: of things which are, that they are, and of things which are not, that they are not" has not drawn on it a particular attention of philosophers throughout history, (possible) until the beginning of the twentieth century – to empiriocritics, phenomenologists, existentialists and others. So when, for example, in the dialogue *Protagoras*, he declared that "the wind is cold to the one who feels cold, but not cold to the one who does not feel cold" [*Diels* 80 B], it will encounter an ironic remark of Socrates: "In that case are we going to say that the wind itself is cold or not cold? Or shall we listen to Protagoras and say it is cold for the one who feels cold, and for the other, not cold?" [Plato 1892, 152 b] etc. And what, he says, surprised him that did not even from the beginning say that: "a pig or a dog-faced baboon, or some other yet stranger monster which has sensation, is the measure of all things", because it would be immediately seen that "while we were reverencing him like a God for his wisdom he was no better than a tadpole" (*ibid*).

Socrates, therefore, has resorted to the argument *ad hominem* in relation to this most famous sophist, from his belief that the said remark: "... and of things which are not, that they are not" does not contain a minimum of truth, and doesn't deserve to be worded as such. Although Protagoras said not other but what we do not perceive in the experience (at a given moment and otherwise) does not exist for us, because the senses help us to establish some relationship to it, and what this time by all fails. And what again means that the reality of what we perceive, and until we do it, is the only and the real one, belonging to us all as such, as we belong to it, and primarily we're experiencing it, and far "less than it" the laws of nature of which it is an expression.

2. From Kant to Hegel: the return to a rational subject (not only in the knowledge)

This "reality for us", the existence itself ... deserved, therefore, to be investigated and studied since the beginning of scientific thought equally insistently as the "reality in itself" – nature, cosmos, universe ... – although it is matter of a different type of structure both times: the one belonging to man as a conscious being, on one side and the inanimate nature – on the other. Plato has, as we have seen, expressed the highest interest in what is most general, in ideas, in essences, in the first principles of all that exists, so that Aristotle's "first philosophy", *alias* metaphysics, has gained the primordial importance over the centuries, valuing almost as a synonym for this science. The terms are conceived too: the essence and existence, matter and spirit, real and transcendent ... with the aim of (permanent) indicating to mutually irreducible spheres, and when religious dogmas have penetrated into philosophy, that gap has become almost absolute. Not until the eighteenth century, Immanuel Kant will systematically show how metaphysics cannot survive as a science, because it strives to understand purely subjective principles of knowledge, such as: soul, world, and God, as a single object of knowledge. It has given rise, according to him, to insoluble contradictions in reason, so it remains that only the world of phenomena is available to a (rational) knowledge, but not noumenal (transcendent) world, which faces the power of reason.

Otherwise, Fichte will be the first to try to overcome the existing gap between subject and object, the thinker and of what is thought ... unifying the two instances in the act of *self-consciousness*, what passes some cyclical, just triadic process, trying to understand itself. Or another name for the self-consciousness is *I*, while the triadic process involves, first, the *thesis*: an original, unconditioned and pure act of a self-creating subject, which as a trend without end is only partially realized, so that the unrealized part of it is now constituted in *I* as an object, or in *not - I*, what does the *antithesis*. Finally, *I* is trying to do that limit as subject of knowledge, overcoming it in a way of *synthesis* (as a negation of negation) of these two diversities etc. This dialectical process is accomplished here (only) in the field of perceptions and representations of self-acting consciousness, when a pure *I* appropriates *not - I* and makes it identical to itself, achieving thereby self-cognition of the creative consciousness etc. Schelling will afterwards in the same triadic – as a dialectical – key interpret the relationship between subject and object, human consciousness and

nature, insofar as he will, first, take into account the existence of the visible and created world, which was by Fichte entirely neglected. According to him, the absolute brings a (dialectical) unity of subject and object in itself, being itself indifferent: neither conscious nor unconscious, neither material nor spiritual, neither free, nor necessary ... The nature is here only a way of appearance (of the same) absolute, as is the spirit, and both times it is about the same, where "nature is visible spirit and spirit is invisible nature". When all lawfulness of the objective world would originally correspond to the acts of our consciousness, on what is found the very possibility of knowledge of world and so on. Otherwise, the nature is, for Schelling, a self-creating power, passing clear stages in its development: from inanimate (inert) matter, at the beginning, to live and conscious matter at the end.

But if it is found that the identity of thought and being, made in the Schelling learning, is formal-logical one, within the absolute as an indifferent totality of objects, for it excludes any distinction and division ("Night in which all cows are black" – Hegel), the panlogism of Hegel will accept that "alive wealth of the world", in an endless multitude of derivations of concepts, in the manner of a new, dialectical "unity with itself in difference". Now his "one and all" is "Absolute Mind" or "Absolute Idea", whose primary determination is *becoming, self-development*, just as self-consciousness of the absolute mind which is achieved in *concept*, not in perception. The concept, the logos is that true that exists, the highest determination of being, the way in which there is something, even this very thing. Just in it subject and object, thought and being, subject and consciousness ... in a constant tension of self-discovery and disclosure (as cognition) of the second, are confirmed as the *one* in the dialectical sense. The being, according to Hegel, cannot be illogical, irrational, because "everything that is reasonable must be real", he would say, and therefore possible to be captured in a concept etc.

3. The irrational origins: will, duration, existence...

We have so that, from Kant to Hegel, has been accomplished the unity of subject and object, of thought and being ... in philosophy, rather as a rational structure, (as a rule) sufficiently elevated above the reality of an individual existence of human being. It is visible at all a primary interest of philosophers to achieve a complete picture of the universe and – almost in passing – to find a place to human existence in it, as well as their interest (only) for subject's ability to know the world, and for ways (through senses, or through intellect) in which he does it etc. Or, if from these general principles they have sought to carry out principles of moral relations of individuals in a community of people, these rules would be again universal and general, applicable to all people and in all times. Although particular existences splice around different particularities of everyday life, which are not an expression of general principles, each remaining to be different enough from any other and so on. And that they are ruled by an irrational, as well as by a rational power, has showed (already) Hegel's contemporary Schopenhauer, by postulating principle of *World will* in the basis, as some dark and trans-sense power passing again and again different forms of its own nonsense. According to him, the world is an *objectification* of the world will, and

each level in nature – an incarnation of a partial will: teeth, pharynx, ... – incarnation of hunger, limbs – of motion, and matter – of force, or, again: stones and plants – the expression of the world will for clarity and so on. And what happens as a consequence of all of it is not a lawful order of elements in nature, not order and law, but a – *representation* "testifying" just about an endless flow of objects and phenomena in experience, whose overall motives and causes cannot be attained. While our human existence, according to Schopenhauer, would be the expression of a partial will – *will to life*, where – above all – each individual will, when achieved, gives way again to another will, other volition and so *ad infinitum*. This is what essentially defines a man, or, more precisely, it is suffering and pain, because "each will comes from a need, so from absence, so from suffering", according to him. And as to the knowledge of the world itself, it remains to be for us the *veil of Maya*, an illusion, a trick of the dream, whose essence succeeds to expose only an *intuitive* insight, as "an ingenious view over experience" and so on.

Thus, *in grosso modo*, with Schopenhauer, and after with Nietzsche and others have turned over – almost two and a half millennial – interest of philosophers from universe that permeates *logos* (Heraclitus), or from nature as a "petrified intelligence" (Schelling), to a nature which (in its entirety) is not ruled by rational principles, especially to human existence, which as do not be concerned about "cosmic laws". To Nietzsche's vision of the world, for example, belongs that in its basis is an immensity of elements called "punctuations of will", which are subjected only to the principle of increasing of their own influence. Because "every specific body strives to master the whole universe and to spread its power", he says. We have after, in the beginning of XX century, Sigmund Freud will build a theory of the subconscious, of "complexes" et al., pointing to the role that, precisely, sexual instincts (*libidos*) have in a person's behavior. At that time, say, Henri Bergson would say that "one should prevail rational point of view" in philosophy, in the name of *intuition* which would be able to include in it an overall abundance of life manifestations, which, according to him, are owed to the principle of *élan vital*, laid in them; it alone has the power to go down in a live stream of reality and to include it in its duration, immediately, without pre-conceived rational categories. Reality that unfolds, by itself, in the way of works of art, which are equally owed to a need for creation in the basis, and what he calls "creative evolution", but different from the evolution in nature, as an unconditioned and "blind" selection process. Let's say that Bergson assigns a duration (*durée*) to the things of the world, but different one from the flow of time, that he differs *homogeneous* (reversible) and *inhomogeneous* (irreversible) processes in nature and in our existence, and such are adventures in the experience, in the memory and so on. And what is, perhaps for the first time in history, that the reality of human existence is being explored in more or less natural-scientific terms of quantity and quality, of homogeneity and inhomogeneity, of measures and the like, and which, again, would be in favor of exactness of obtained results.

And that the life and duration, as well as the whole universe elude to an intellect, just in what is most essential in them, as a movement, or self-development, it comes, according to Bergson, from that the understanding "grasps" things from outside, in

their static moments and them as discrete quantities, and not from inside, in the sense of dynamic entities, always different and new ones. They appear to intellect as parts able to achieve a mechanical whole, and not elements revealing a certain structure, and a human in that is rather *homo faber*, than *homo sapiens*, he says. Intelligence, in his words, "is exercised exclusively on inert matter, in this sense, that even if it makes use of organized material, it treats it as inert, without troubling about the life which animated it. And of inert matter itself, fabrication deals only with the solid; the rest escapes by its very fluidity " [Bergson 1998, p. 154]. Neither words, concepts can express what truly exists, for they are inherently permanent and rigid creations, which as always the same we apply to objects, processes, ... although they are – even only slightly – in different moments, always different. The words betray things, distorting everything is immediately given, moving away from what is authentic they strive to mediate, rather leading to a misconception about it, than bringing a truth on it. We have so, says Bergson, that in the case of "a violent love or a deep melancholy takes possession of our soul: here we feel a thousand different elements which dissolve into and permeate one another without any precise outlines, without the least tendency to externalize themselves in relation to one another; hence their originality. We distort them as soon as we distinguish a numerical multiplicity in their confused mass what will it be, then, when we set them out, isolated from one another, in this homogeneous medium which may be called either time or space, whichever you prefer?" [Bergson 1910, p. 62]. Thus, according to him, what exists by itself, cannot be known from "inside", indirectly and through another, by an analysis and separation, but only from "above", directly and comprehensively, in a way of "intellectual sympathy". Thus Bergson in the concept of duration, which he compared to the work of art, to the melody in music, has expressed an (intimate) person's life peculiar to himself, as a flow, as an organic unity in his temporal determination, as a quality, but from whose depths "speaks" the urge for freedom, for creation. Insofar as the memory helps us to create a bridge between past and future and in the act of creation to repress the ever-present idea of death.

So we have referred, on the example of Bergson learning (*vitalisme*), to those of them which deny that the existence may be expressed rationally, in a manner of concepts, and what the philosophical tradition over the centuries almost completely bypassed. Albeit in Church Fathers, in St Augustine, Tertullian, and afterwards in Pascal and Kierkegaard, one faces existential questions, but, as a rule, of religious individuals. But with the philosophers–existentialists, from the first half of the twentieth century, "religious" (K. Jaspers, G. Marcel) as "atheists" (M. Heidegger, J. P. Sartre), the human existence will be more deep rethought and through different categories, such as, for example: anxiety, fear, anxiety, nausea and others. And since from the beginning they postulated the view that the existence precedes essence, which is another term for that a man first exists, and then he assigns the essence to himself. That is, a human is not a being governed by the reason in itself, but rather a "nothing" (Sartre), as emptiness devoid of any "original" meaning and sense. Heidegger through the word *Dasein* (there–being) designates that authentic and unconditioned life of man, which he tempts as his own "thrownness into the world",

on the relation between "border situations" that define his existence. Those focal points of his existence would be: death, fear, guilt, conscience, etc., when we have that the first born the dread of finality of existence, and which, in turn, brings a care to make it authentic in those limits, forcing man to be responsible for decisions he brings, by nothing conditioned, in freedom and so on. Otherwise, to the other, not rethought existence of man, it belongs that it is determined to a highest measure by the "banality of life", usually as an impersonal survival of it, most often expressed by words "it", "one" (*man*): "it must be", "it is said" etc., and what acquires the character of pressing, of dictate. Such case is, say, with the death, which is a trivial, a banal event for him because "it happens", "it's something common" and the like, although the death is, just, a true "landmark" which can and should point to an authentic existence of man, and which necessarily belongs to him by nature.

Or else, the metaphysics as a science of "what is" (*to on*, Aristotle), did not bring the truth about being, for it has been separated by Aristotle, ... into two unforeseeable spheres: of eternal and unchanging essences and of transient and changing things – even if they are, for thinkers before Socrates one and indivisible (Parmenides), or in permanent coming to be (Heraclitus) etc. This has led to the "oblivion of being", according to Heidegger, in philosophy, and whose truth is only preserved in the works of poets ("Poets are shepherds of being", according to him), and his *Dasein* – as a true, authentic existence of human being – is not and cannot be identical to "being, in general" (*Sein, to on*). The art and poetry, and not (only) the thinking, technical progress and the like, express an original existence of man in his wholeness and oneness with Being, what Heidegger illustrates on the example of Van Gogh's canvas *Pair of shoes*, and which evokes not craft and similar feelings, but "ontic ones". Like his other works with the same motive (bespattered peasant shoes) which are also aimed at reflection of man's deepest existential motives from his encounter with Being.

Like Schopenhauer, Danish philosopher Søren Kierkegaard too finds that a rational presentation of world do not pass without causing an endless evil to it, since the structure of it is irrational. And human existence is such an unknowable particularity, a dark and boundless depth, unruly to concept and elusive in the categories of reason. It can be said about to be a scene of irreducible contradictions and all in paradoxes: of man and God, of thought and existence, of eternity and temporality ... The thinking fails to overcome them by synthesis, remaining constantly on the opposition *or - or*, while "synthetic" is just the reflex of human existence on contradictions of life, which pass in *fear, distress* and *sickness unto death*. Otherwise, only the "subjectivity is true", will say Kierkegaard, while necessary, general truth does not exist, being only a "philosophical mean", or a schematic framework, deprived of reliable basis. Thus, it remains to each individual existence to conform to "irrational" areas which are "inherent" to it, by following its own path to freedom, and these are the areas of *aesthetic, ethical, and religious* life. Because, firstly, on the aesthetic stage the human individual gives a way to the game of imagination, to changing of emotional states, etc., in order to find, on the ethical stage, in the repetition and constancy of events, a preferable meaning for itself.

Finally, torn by suffering, anxiety and fear, as permanent determinants of an inauthentic life, on the religious stage, it realizes mental tranquility and peace by means of a higher instance of God. The symbol of the first stage is Don Juan, of the second Socrates, and of the third one Christ etc. (Otherwise, Kierkegaard was a precursor of more existential teachings of the XX century.)

Karl Jaspers also pointed out that philosophical knowledge completes the scientific one and philosophical concepts – scientific terms, often acting opposite each other. So the notion of necessity in the science of nature correspond to the notion of freedom in philosophy, or else the concept of objective reality, in the first case – to the notion of ability to make choices in the second and so on. And in so far, according to him, everything that exists disintegrate to: *a*) material reality (*being-in-the-world*), *b*) existence (*ego-being*) and *c*) transcendence (*being-in-itself*), while concepts, categories, ... can express only parts of reality, but not a human being, or an individual existence. Because the last datum is infinitely complex, original and unconditioned, unique and always new, such that no ossified rationalist concepts could reach it, as these would not be suitable to do it, if we have in mind a third of these instances, being-in-itself. Namely, the being-in-itself, as transcendence, as reason, tries to cover by itself the material reality and existence in their mutual relationship, and what it can achieve, Jaspers finds, only in the way of code, of allegory, of metaphor. That way are revealed moments of human existence, around which it is essentially entangled, namely: communication, freedom and so-called "border situations", which include *death*, *suffering*, *guilt*, etc. The concept of communication acquires here a primary importance, not only between human individuals, but also between cultures and civilizations, because it managed to mitigate the moral and social evil, and, along with it, to achieve fruitful dialogue, both at the individual and at the global level.

4. "Back to things" – Husserl and others

To Husserl afterwards belongs an original attempt to reject in the theory of knowledge the overall ossified rationalist linen through which, by putting on material reality, the human spirit itself gained its own rigidity, trying to build the concepts and methods to "soften" the existing antitheticity of real and ideal, of perceptible and conceptual, of subject and object. He achieves it in a pure *a priori* consciousness, called *eidōs*, whose activity is intentional and aimed at the very eidetic essence, *noemas*. According to him, *noemas* bring the very essence of things, incarnating the unity of content and of mental act, so they are different from the Platonic ideas-essences, otherwise, infinitely distant from individual things. Thus, Husserl's slogan: "Back to things themselves" was aimed to provide more genuine unity of entire knowledge (scientific, philosophical), which would be necessary and general one – even if it is achieved on the ground of subjective consciousness – by the method of so called "eidetic reduction": first, by removing the psychic *I*, to the extent in which it covers view on the essence of object, etc., stopping finally at the "pure consciousness ... deprived of sensory content and targeted at space-time sense of *noemas*". Etc. So with the notions of phenomenon and the phenomenological method Husserl – in a

wide range – has brought the interest on subject, on subjective, as equally "appropriate" to enable a general validity of truth, out of conviction, steady over centuries that they can only be derived from rationalist-empirical knowledge.

A somewhat similar, although differently found, bring in the late nineteenth and early twentieth century, teachings of Ernst Mach and Richard Avenarius. Ernst Mach has followed since the beginning in the science of physics (equally in philosophy) the holistic approach, according to which only the wholeness (the universe) has a primary (ontological) character and everything else – secondary and derived one. This will help Einstein, for example, the categories of space, of time and gravity field, in so far as absolutely valid, to do as consequences of a generalized category of curved space-time, or in quantum mechanics the concepts of field and particles to be replaced by a category of probability of existence of matter in different states. For example, Mach says: "Time and space exist through mutual relations of physical objects, the relations we do not enter ourselves, but they exist in the way ... of mutual dependence of phenomena" [Mach 1976, p. 20]. He, therefore, does not deny the objective (ontological) character of phenomena (of objects) in nature, although he does relative the character *a priori* of a series of generally accepted concepts in science and philosophy, for what otherwise he was reproached. Or, for Mach mass and inertia too will be consequences of the existence of all bodies in the universe, and not properties belonging to them in themselves and so on. According to him, neither allegedly (absolutely) disparate notions of space, time, particles, fields, ... in physics, are irreducible to one another, so that in so far he sought and found way to achieve real and ideal, sensual and rational, subjective and objective, ... in the same concept, which he has designated as: *complex of sensations*. "Neutral" by their nature, complexes of sensations are not physical nor mental, not subjective nor objective in character, and those labels are attributed to them depending on the point of view from which they are observed: that, of nervous system, in the first case, or of objective reality, in the second. Namely, Mach was interested just in that to what we really strive in experience, and that is to align our life with the environment (in terms of evolutionism), as well as to conform in the thinking to its economy, its organization and harmonization. Thus he reduces things to the "complexes of sensations", when, say, atoms, molecules, mass ... are only symbols suitable to describe reality etc.

To the principle of commodity (economy) of thought, as the least expenditure of energy, will adhere Avenarius too, in the last decades of the nineteenth century, finding that, for the same reason, even the concept of substance could be removed from the knowledge (as unnecessary), and it alone be directed to the "flow of sensations". In addition, the subject and object in knowing will realize an "inseparable connection", according to him, as a "contra-member" and "the central member" of so called "principal coordination", that when, say, we look at the tree, the subject of my knowledge become the tree and me. Lenin, as it is known, in his work *Materialism and Empiriocriticism*, has exposed to a devastating critique the teachings of Mach and Avenarius (and of their followers), accusing them – primarily from ideological reasons – to deny the objective existence of matter, independently of human consciousness. And what (we have seen) certainly was not the case, but that since the

beginning it is about a (possible) more fundamental unity of the sensual and rational, of nature and human consciousness in the knowledge. It is worth noting that, in the words of Einstein: "Mach ... was quite close to the discovery of the general theory of relativity. And it half a century before its creation", as, certainly, a confirmation from an eminent place of the validity of learning of the Austrian physicist.

As we have said, postulating the "anthropic principle", the modern cosmology has risen man to the rank of being just as necessary as space itself – and even more than it – when it has found that in the cosmic constant itself is contained the necessity of his appearance, as: in order to attribute to him, by his power of perception, the meaning belonging to it. The human being therefore is not a random product of the evolution of species, but an integral – and "important" – part of being, essentially determined by the whole being (being as a whole), as well as many special sciences have reached deeper results in their development when they have determined the objects of knowledge by the very whole to which they belong. Say, habitat, environmental conditions determine living beings in the theory of evolution, just as man his generic essence realizes in society etc., so that, for example, even in the most abstract mathematical science, the theory of categories, its objects are determined, rather, by relations they have with other objects of the same set. Or again when in the topos theory it is shown that the structure of a topos emphasizes its primacy (even) over its logic, etc.

We saw afterwards that there is no absolute validity of concepts in the science, and that even space and time depend on the subject who perceives, as is the case with all the knowledge, in general, and that it is not never completely objective, but becomes necessary "permeated" by the subject who learns. In quantum mechanics, again, it is confirmed that the whole micro-cosmos is a realm of ambiguity and freedom, and that these principles are laid in the very foundations of world being. And when it is about the scientificity of the very methods of knowledge, they are for Paul Feyerabend rather "anarchic" and in relation to a case, to an arbitrariness ... and possibly with author's lucrative motives, failing as a rule to attain all facts from experience, not less leading to paradoxical statements. And that "tertulianian" fortune in the scientific knowledge of the world, this philosopher expresses, precisely, by the slogan which became famous: "*Anything goes*".

Both Descartes with his *cogito*, and Kant with *a priori* categories of reason, let us say also, have turned interest from necessary and general truths in the realm of nature – two millennia after Protagoras – to the area of subject, in the pursuit of equally reliable assertions in this sphere, even if the essential element of it is – freedom. In the panorama of views of the new age philosophers we sketched – from Fichte to Ernst Mach and the anthropic principle – we have referred somewhat of how attempts were made to return the subject (human existence) from "forgetting" that occurred with Socrates and after Protagoras, inasmuch as such a large sum of knowledge generated during the history of objective reality, of nature largely transcend the existing knowledge about the subject, about the man. Because all natural sciences followed indeed Socrates "vow" to "think the world in concepts", achieving indeed amazing results, but the most accurate of them, at the very top of

their development – such as the theory of relativity and quantum physics – have found near the vagueness and freedom. Or, again, that "iron" necessity of succession of consequences from causes now has ceded the place to the probability of events, and a perfectly ordered universe – after all to its chaotic organization, which knows the order only some (no matter how long) time.

5. Knowledge about subject as lawful and not arbitrary one?

But if the concept, the law, the experience, ... were happily chosen means to obtain an enormous corpus of results in the natural sciences, in the field of life, of conscious subjects, the means of research as do not be indicated, beyond the sketchy labels like: a human chooses his objectives to which he strives in freedom and the like. Although it is not matter in this way about differences, from one to another human being, which (at least schematically) could not be able to compare, even as, on the other hand, the reliable knowledge about the subject would not be necessarily owed to formulas, deductions, proofs as in natural and deductive sciences. Or, again, philosophers assured in their own way that: "the order and connection of ideas are the same as the order and connection of things" (Spinoza), or that: "the human spirit and nature are made for each other" (Schelling), or again: "what is reasonable is real; that which is real is reasonable." (Hegel), etc., id est that both times it is about (at least) homeomorphic areas of nature and human spirit, but we do not find even a starting word which, in the sphere of subject, of human existence would correspond to the starting word "concept" in sciences. Just as, say, the freedom in the sphere of humanity, really corresponds to the necessity in the field of nature, although we find a disordered multitude of terms which properly describe different psychical states of man.

We find that such an initial "notion" could be designated by the word *conatus* of Spinoza, which has in him the meaning of preserving one's being (*conatus in suo esse perseverandi*), and which to other concepts: happiness, joy, pain, ... allows their existence, as the means of informatics and mathematical sciences could equally be applied to human reality, to existence. Just as arithmetic formulas, algebraic expressions, equations, ... find a valid application in the natural sciences, we have this time that (at least) worthy rethought programs, software and hardware, by (such a large) power they have, could "go behind" human existence and point to *purposeful* and *optimal* paths that human individual selects in the realm of freedom. For if, according to Alain Badiou, the philosopher should be "something else than a wise man", "different from a rival of priest" in the way "of a writer who struggles, of an artist of subject, in love with creation"², whether he could trust and follow (optimal) models of subjectivity which he would conceive to achieve his goals, and whose chances of success would be given in the result of application of these models? Insofar as by this path may be "treated" too a great multitude of factors influencing the behavior of a living organism, of man, especially since, after all, to a live

² Alain Badiou: *Panorama de la philosophie française contemporaine*, <http://www.lacan.com/badfrench.htm>

(conscious) being can be applied determinants of a dissipative (irreversible, unstable, dynamic) system. Otherwise in the nature is such a case that, according to Ilya Prigogine, "deterministic and in time symmetric laws correspond only to very special cases. They are true only for *stable* classical and quantum systems, that is, for a very limited class of physical systems, and as to irreducible, probabilistic laws, they point to the picture of an 'open' world, in which at any time come into play all the new and new opportunities" [Prigogine, Stengers 1959, *Introduction*].

Can we, indeed, consider the reality of human being as a dynamic system and apply to it a certain deterministic model, although the events in it are arbitrary, random? We certainly find that it might be possible to look for models which various human activities would express as irreversible, dissipative systems, in the sense which has been brought, precisely, by the theory of chaos in recent decades. These systems are now self-organizing, dynamic, and predictable, and may be, therefore, exactly approached, as they are closely related to other, also exact theories, like fractal geometry. They all have testified that in a number of areas of reality that over the millennia it was believed to be too complex to be submitted to any "account", is still recognizable regularity, moreover, one shows that from a micro-level, to the cosmic scale, all regular and periodic changes are only (legitimate) "moment", as we have said, of a chaotic movement which is universal. Just as we do not meet in nature regular geometric forms and bodies (circles, squares, cubes, ...), encountering only the broken lines everywhere – *fractals*. But if in the course of history the objective reality (nature) has been submitted to an exact research, it was not the case with human subjectivity, in which have been interested just philosophers existentialists, when these would, say, diagnosed the man's condition as "thrownness into the world" (Sartre) – therefore, subjected to some form of evolution, of self-development – or, in turn, condemned to make choices (*or – or*, Kierkegaard), after accepting from the beginning the absurdity of life, etc. Because if "man is condemned to be free" (Sartre), and when he "firstly exists and only then assigns to himself the essence" (existence which precedes essence), there is no doubt that rational methods could certainly serve to it, in processing a large number of data to be found in the ground of choice, as well as in estimates themselves to succeed. (By the example of atmospheric changes, which are also such a dissipative system, whose model has to "consider" about six million of data, and which computers now simply can handle.) For although it is said that an individual makes decisions in freedom, it is never the case that it is not guided by something along the way, even when adhered to intuition, while now is in position to "follow" an (exact) behavior of (development) of its model in an arbitrary point of time. On the basis of calculations which, due to an excessive number of operations, he could not execute himself without help of computer.

The exact methods we have today, include such procedures which assign to factors in a dynamic process some "weights", which can indicate the minimum or maximum amount of possessing a property (of power, of influence, ...), as well as it has been developed no small number of "appropriate" logics, which are going to meet such processes. Moreover, we said earlier, one of results in science is that the circumstances (environment, etc.) can determine (imply) the appropriate logic, etc.,

all of which goes in favor of that human reality: the relationship of man to himself and to the others, his attitude towards work, the choice of moral values etc. – although not necessarily by the same means – can also be reliably investigated as the nature itself in the sciences of nature. To what certainly contribute numerous philosophical assurances, which we have evoked in the same sense, that the nature and intellect are manifestations of the same absolute, and that their parts thereof necessarily correspond to each other. All the more so because one shows that in the basis of such nonlinear and complex system can be found extremely simple initial conditions, as is the case already with some simple functions and their values in the theory of chaos. That a subject can use exact theories which would successfully enough simulate the existential problems and offer prospects for their solutions, finds basis in the fact that religion, social systems, forms of culture and moral striving to build standards through which they arrange the life of individuals in a community, and which find through the millennia strong points in the human nature. Starting from the fact that it is stable as a structure, even if it is subject to changes during evolution. It is said also that "freedom is the recognition of necessity" (Hegel), that "to be free means to govern according to reason" (Spinoza), that "the freedom is for man a basis on which he builds his being" (Kant), etc., so "to live in freedom" for him does not mean "to live in arbitrariness" and the like. And moreover, we have in the science today that one has gone behind the problems of complexity (not only) of biological systems to such an extent that machines are made too trying to follow their own, artificial intelligence (robots), or, in turn, have been highlighted requirements for construction machines which are thought to be able to replace the human brain. Therefore, if in the wake of definition of man as a being, which in the face of nature and community of people, strives to achieve its generic essence, potentially given to it – on the line of creation and self-creation, of knowledge etc. – we ask the question whether the human subjectivity can give itself to a possible model of self-organizing (non-linear, irreversible) system, in order in that framework to search for solutions of problems that philosophers of subject (only) "anticipated" in their spirit, let us pass somewhat the essential lines of such dynamical systems.

We find here, first, "the sensitivity on initial conditions", illustrated by the phrase-metaphor "butterfly effect" of Edward Lorenz (1972): that, in fact, *"the flap of a butterfly's wings in Brazil can set a tornado in Texas"*. Lorenz was convinced of this when, simulating weather conditions in a model, got very different values and "divergent" curves after rounding data for variables from six to three decimal places. But the system as a whole, showed stable itself, manifesting very specific behavior, finishing over time in a free figure, as its final (equilibrium) state (s. c. *strange attractor*), which can be graphically displayed in space, and which revealed indeed the look of butterfly wings spaced. When it is made as object, it could be read on it the state of the system – the weather – for a number of days in advance etc. Authors who have studied these complex systems marked them as "synergetic" (G. Haken), "dissipative" (I. Prigogine), etc., and with the aforementioned sensitivity on initial conditions, or the existence of attractors, some other properties of them would be the following ones. They know the "bifurcation points" (branching, forking, separation),

when during evolution, due to (too slight) changes of parameters, they lose stability and re-organize themselves (simplify or complicate) further in a new way. Thus, the moments of fluctuations and instability of the system occurs as a condition of its self-recovery and more stable state, etc., so behaving – more or less – all complex systems, internally determined. Next, those who describe such processes in nature will find that they come in a global "harmony" – on a macro and micro level – with the laws of evolution and quantum laws, in organic and inorganic world, where the wholeness of all that exists represents an organic whole, so that a whole range of established views on being throughout history is shown to be a prejudice.

Here we have in mind the belief that laws of physics bring the absolute predictability of phenomena – until the state of the universe – if the initial conditions are known (Laplace), and now we have that these laws are only likely, statistically, indefinable. As well as the state of stability to be only a period or phase in the evolution of nonlinear systems, which will again give way to its instability, and it again to new stability, etc. Likewise, "traditionally" the phenomena, processes ... in nature are considered as (completely) objective, independent of subject and, as such, given forever, and now it is required of us to study them historically and in development, as well as in "synergy" with a subject who perceives them. Nor is being further a (distant) basis of entire coming to be and changes, but they are taken as a whole, whereby the latter acquires, rather, an advantage in the knowledge over the first one. Namely, it is shown that connections, relations between elements, or parts of a whole acquire a priority over their nature, so that it is even possible to determine them "more accurately" by the totality of these relations, than by "themselves". Finally, as we have said, the very logic according to which rule these elements will not be an "universal" and superposed over them, but determined by an appropriate "texture" (location, position, relation) of these elements, etc.

6. Subject and dynamic (chaotic) systems

Can we construct a model of our subjectivity? A model of acts we have to perform in achieving goals we have conceived for ourselves. And does such an activity as a dynamic process has properties of chaotic systems? It is easy to see that the evolution in each of such cases is dependent on many factors – such as those in the weather – and that each of them is also "sensitive to initial conditions": in the sense that a slight change in them might substantially be reflected on the desired outcome. Hence, such an individuality (identity) of every human being in the world, as well as the "irreducibility" of two subjects one to another in any aspect of their existence, or that every man is *post festum* in a position to identify facts and circumstances – favorable or unfavorable – which have had an impact on a living conditions in which he has fallen. This is confirmed by the fact that when, say, some vague and unfathomable circumstance had a fatal impact on his (whole) life, he uses the word "fate" in order to refer to such an unrecognizable and "minimal" fact. This we see in art (accepting influences, changing styles), in science (substitution of hypothesis), in education ... as, in terms of civilization, it can be said, for example, that to the development of man, of human communities have contributed, in the

Paleolithic, postulating taboos ("Thou shalt not kill!"), or, in the Neolithic period, the development of agriculture, of livestock and others. And that man's global "relationship to the world" shares in character the essential features of nonlinear dynamical systems can be sensed also by quoting a small number of examples – in the living and inanimate nature – where is reliably confirmed that they have such a dynamic nature. Here we have in mind: the activity of the DNA in the cell, cardiovascular changes in the body, disease outbreaks, population growth, the movement of prices in the economy, until to cultural phenomena in society. Or, in terms of chaos theory, it can be explained the theory of evolution, or the mutual relationship of man and the environment in ecology etc.

A property of dynamic systems afterwards is that they have often similar parts as a whole, what makes them to evolve (develop) as fractals, which, for example, in the case of the observer who learns can be presented in a way of triad: subject (*thesis*) – object (*antithesis*) – knowledge (*synthesis*). Every act of learning is, therefore, similar to one another, because it works after the same triadic scheme, in its macro and micro level: when facing the being, as a whole, as well as to one of its any part. Panlogism of Hegel, as a self-development of the absolute spirit in the concept, has precisely such a structure (this time on the ontological plane), which reveals a figure of triangle of Sierpinsky and which is a fractal. He says in the *Encyclopedia of the Philosophical Sciences*: "Each of the parts of philosophy is a philosophical whole, a circle rounded and complete in itself" [Hegel, § 15]. And it is well known, however, that the most common structure of strange attractors in chaos theory is, precisely, fractal one.

Or else, how much the description of evolution of a thermodynamic system "resembles" the sphere of the subjective, of human can be sensed, for example, from the following statements from the book *Order out of chaos* of Prigogine and Stengers: "Near bifurcations systems present large fluctuations. Such systems seem to "hesitate" among various possible directions of evolution, ... A small fluctuation may start an entirely new evolution that will drastically change the whole behavior of the macroscopic system." [Prigogine, Stengers 1984, p. 14]. Or: "It seems that molecules from different sides of the dissolution may in some way communicate among themselves. There is no doubt that further from the steady state the coherent behavior of molecules increases to a very high degree. At steady state molecules 'see' only their neighbors and 'communicate' only with them. Further from this state every part of the system 'sees' the entire system as a whole. It can be said that in a state of equilibrium matter is 'blind', but in far from equilibrium conditions it begins to be able to perceive, to 'take into account', in its way of functioning, differences in the external world" (*ibid*). It is clear that the imbalance of the system leads to a corporate (consensual) behavior of the parts making it, while in the state of equilibrium its elements would act independently and autonomously. And this is something that the founder of synergetic, German Haken, has noted in "various systems, such as astrophysical phenomena, phase transitions, hydrodynamic instability, i.e. cyclones in the atmosphere, or in the dynamics of populations, and even in the phenomenon of fashion" [Кохановский, p. 423].

And that the gap between man and nature can be overcome in the science, and that here it's not about two "farsighted" spheres: of subject and object, of freedom and absolute necessity, etc., is confirmed by what have said many eminent physicists of the last century. Let us mention Eddington, according to which "the subjectivity stamp is seen on fundamental laws of physics", or Schrödinger, for whom "subject and object are a whole", i.e. Carl von Weizsäcker, who will say that "consciousness and matter are different aspects of the same reality", and so on. It would happen in accordance to the notion of a global evolutionism – with all deviations from it – and "beyond" every idea about "the last man", "the end of history", "the end of science" and the like., from the last decades – just in the era of informatics we are now witnesses, and with the development of sciences, such as: artificial intelligence, information theory, game theory, optimal control and others. Because the power of hardware and software in the information processing of a real importance for a thing, a state, or a process, "infinitely" surpass any subjective possibility (of scientists and philosophers), as all results obtained in this way would be inasmuch reliable. It should only exert a necessary inventiveness and ingenuity in the construction of models which should emulate a real process, or rule an appropriate IT language in various occasions that bring the reality of life. These results would cast a new light on (all) philosophical problems and their solutions throughout history, indicating the optimum of possibilities of a human living in the community of people, as well as of the broadest social communities in general. Contributing to a more accurate comprehension of problems and to finding solutions in natural sciences, they would appear equally as a powerful means of research of human subjectivity, which has been, as we have said, almost completely ignored over the centuries, and almost all scientific curiosity have acquired the sciences of "objective reality". In addition to the aforementioned theories (of chaos, of irreversible systems, etc.), we are now in possession of a new – fractal – view of the world, which was passed by fractal geometry, leaving behind straight lines and plane surfaces, which in nature do not exist anywhere, and which have dominated in science from its beginnings. The phenomenon in science, as in culture, which after its significance Ilya Prigogine has compared with "the development and expansion of Buddhism and Christianity", or, in his words: "Forty years ago, the number of scientists who have studied the physics of solid bodies and information technology was not greater than several hundred people. It was a 'slight fluctuations' in comparison with the development of science in general. Now these disciplines have gained such importance that they emphasize a decisive influence on the development of mankind. The number of researchers working in these fields of science has increased exponentially. It is a phenomenon without precedent in human history, far more convincing than the development and spread of Buddhism and Christianity" [Аверошкин, p. 626].

This overall multitude of exact methods and means, software and programs in science which would be found – to be believed – would throw a new, sharp light on "darkened side of being", on the subject, the true *terra incognita* in the knowledge up to date, and which would meet new concepts and different methods of reasoning, following the logic which would be more appropriate to the overall truth of being.

Because while in the truths of objective reality, say, now is looking for a (single) "theory of everything"³, which would be, in the words of Stephen Hawking, "the greatest triumph of the human mind", testifying "about the idea of God before the creation of world", we now have that an individual, a subject rather flounders in dens of a banal everyday life, than to tempt truly "bright" moments of its harmonic relation with himself, with his fellows and the wider community.

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³ It is a theory that would unify all four known forces in the universe, such as (so far) the general theory of relativity has explained gravity and quantum mechanics, strong and weak nuclear force and electromagnetism.