Plato’s Physics of Meta
The Ontology of Image in the Timaeus

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Plato’s Physics enjoys a peculiar place in the whole of the Athenian’s Thought and written production. It does not build up a structured system or doctrine, rather it can be deduced from a series of scattered hints across the whole group of the Dialogues. The only exception is represented by the cosmology of the Timaeus, even though it is hard to consider its unique mix between spiritualism, geometry and theory of elements as an organic physical theory. This could prevent everyone in reputeing Plato’s Physics a significant step towards the evolution of the discipline to Aristotle and beyonds. But this would also denounce a lack in hermeneutical skill and in historical attitude as well. The aim of this paper is to suggest that an enquiry on what is peculiar in Plato’s Physics should point to another direction, precisely to the connection between his theory of elements and his ontology. My Hypothesis is that the relationship between the ultimate definition of Being in dialogues such as Sophist, Parmenides and Philebus and the cosmology of the Timaeus, is a much stronger than the one which is commonly held. The first three dialogues describes Being as a costant intertwining of some basic determinations (also called ’genres’) which appears principally in the synthetic structure of human logos. The way in which the basic determinations of Being stay in mutual relation to each other is described both as a sympleke and a koinonia, i. e. as a necessity for each determination to maintain itself in connection with all the others to be thought or uttered in language. What we can call an original syntaxis rules the composition (synthesis) of Forms-Genres that gives human thinking and speaking structures and, subsequently, rules the whay in which logos appeals to Being. Every determination both contains and excludes the others. The One must be differentiatied from the Other to be as One. Being must be one in itself and also differentiated from the One to be thought in itself, and so on. This is not distant at all from the way in which Plato presents the relation between the elements of material world in the Timaeus. A geometrical rule of composition prescribes the possibility for one element to join another (dynamis koinonias) or not. The same geometrical rule disciplinates the building up of the elements out of the basic concepts.
of geometry: point, line and surface. Since they all derive from the original unity of the point, whose movement generates line, the movement of the latter generating surface and so one, the elements of the physical world are direct expression of the first synthesis which always occurs between the basic geometrical (and mathematical) determinations. Is out of a such synthesis that Plato deduces the need for the four elements. And out of the same basis he can also deduce the formation of the geometrical figures and, subsequently, of the basic series of solids which corresponds to the physical elements in their material shape: cube, tetrahedron, octahedron, icosahedron, dodecahedron. This may only seem a more sophisticated and spiritualized version of old Theories of elements such as Empedocles’, Anaxagoras’ and Pythagoras’. As a matter of fact, this theory can be linked to the Ontology outlined in the dialectical Dialogues to argue that Plato’s Physics is not a sectorial compartment of that mixed bundle of doctrines which constitutes his ’System’. Platonic Physics do not gain a new legitimacy as organic and scientific theory by exploring its connection with geometry and biology from the time of Plato. This is pretty obvious and does not give any particular originality to Plato’s position. The challenge we shall issue to Plato’s Physics is rather to establish a strong link between its contents and the actual innovation represented by his new – relational – concept of Being. It may thus be shown how much the ontological foundation enriches and does not limit the horizon of Physics and the representation of man as a natural being. Determined in its physical constitution by structures which lie beyond – meta - the world of phenomena, the very existence of man as living being is the harmonic intertwining of the two realms that specifies Plato’s metaphysics. Out of this scenery, out of this meta, there is no life, neither physical nor intellectual.

The thesis from which this paper starts is a very common one: Plato’s cosmology and Physics cannot be separated from his Ontology; we even could dare to say that they are an expression of his Ontology. So stated, it may seem nothing more than a triviality. But something changes if one really asks what does it mean in general and also in the platonic context, “Ontology”. If we would outline a definition, we might right say: Ontology is the description of a net of logical relationships in which it is possible to address something by assigning to it some essential properties. These properties must identify it either by
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distinguishing it from something else or by connecting it to something related. That is what we call: addressing something as a being and out of which we may pose such questions as: “what is there?” and “how it is it?”. We’re talkin about a notion of Ontology that, so stated, has an ancient story and a modern one as well. As a matter of fact, this definition is contained in the famous opening sentence of Aristotle’s *Metaphysics Gamma*¹: “There is a science which investigates being as being and the attributes which belong to this in virtue of its own nature (*estin episteme tis he theor ei to on hei on kai ta toutoi hypar-chonta kath’auto*)”. But it goes through the entire course of western philosophy and is made official – as it were – between the end of the XIX century and the beginning of the XX in Germany. In this period some post-hegelian and post-positivist tendencies such as Neokantianism, Philosophy of Values, Historism and Phenomenology (among the others), analyze the methodics and results of empiric sciences by referring themselves expressly to an ontological perspective and so ending up with a new notion of ontology as a whole. According to all these perspectives, Ontology is the result of a peculiar point of view, the one of the science. The legitimacy of an ontological space derives from the ability by a science to show the necessary belonging of some properties to something – which is called object. These properties must be connected to each other by recognizable laws. The whole of the laws which describe the relation between an object’s essential properties form the objectivity of an object and its consistence as present being. The model devised by these objectivistic ontologies provides, to a certain extent, the paradigmatic basis to all scientifical-philosophical ontologies still today: this is the case of social ontology, cognitive ontology, mind and language ontology and so on. But what it does happen if we try to conceive platonic ontology on the basis represented by this model? What it occurs is something odd: we do not succeed in applying correctly even the first requested definition of being-object: something which is defined by the necessary belonging to it of a whole of properties, these latter connected to each other by recognizable laws. I will try to argue my point by showing that it happens because Plato’s ontology is a twofold one – one may even say: an ambivalent ontology,

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¹. Aristotele, *Metaphysica Gamma* 1, 1003 a 20 ss.
just as ambivalent is the concept of being with which, from *The Sophist* onwards, it operates. In the *Sophist Being* (to on) is described by Plato as one of the forms-genres which, together with all the others, takes part in defining the consistence of something as a *being*. In this way *being* is element and also final result of the composition of all these forms-genres in a dialectical unity. We so run into a first obstacle which prevents us from reading Plato’s Ontology in the matrix defined by objectivistic tendencies we quoted above: if we try to answer roughly with platonist theoretical elements to the questions asked by contemporary ontology, what we obtain is a mess of paradoxical results. What could indeed be a platonist reply to such questions as: how many sorts of *being* do exist? And to which one do physical beings belong? If we take Plato’s *Timaeus* as the final point of his ontological Thought we could be compelled to face answers so framed: two types of *being* do exist: one which always *is* and never becomes, the other one which never *is* and always becomes (*ti to on aei, genesin de ouk echon, kai ti to gignomenon men aei, on de oudepote 28a*), whereas physical *being* is expressly said to belong to the second genre. What kind of sense does it make the attribution of the essential feature of not being, of constant becoming to something addressed as physical *being*? None, in a strict logical context. This would mean: the notion of physical *being* would not be a coherent one, rather the result of a deprived, almost metaphorical application of the proper notion of being-something. And as much metaphorical must then be, according to Plato’s Ontology, the notion of *physical science*. In the platonist scheme *science* is a steady knowledge of causes and principles, that is a dimension preserved from every trace of becoming and changing. This would mean the unpossibility to make science of physical world by remaining on the surface of becoming and change, that is without turning to another level of reality: the conceptual firmness and stability of causes and principles. To make science of the physical world one should go beyond (*meta*) the realm of becoming and find access to a new dimension. According to this, the notions of *physical being* and *physical science* refer themselves to deprived concepts of being and science. They allude only metaphorically to full concepts of being and science which are expressed by the firmness and stability that should be gained overcoming the world of *phenomena*. If we assume strictly this distinction between two realms of reality stated by Plato (*Being = the eternal world of concepts*
vs. Becoming = the physical world of phenomena), the very notion of physical science appears to be a contradiction. A discourse which tries to apply the categories of science and being to the domain of phenomena without the mediation represented by the meta is therefore convicted to remain metaphoric, a second-order logos, almost – in platonic words – a myth. And as a matter of fact, as it is presented in the Timaeus, physical discourse owns the same structural features of myth and poetry. It is about a second-order representation, a likely story which seems to serve only to point in the right direction, to the purpose to let blink in its transparency the realm of the true logos. This one, the logos of the science, can be gained only via pure reason, that is through a reason uncompromised by any suggestion derived by senses. As a second-order discourse, platonic Physics is constantly looking for its proper location in the platonic corpus. I personally endorse the thesis this location may be found in the constant developing of the notion of image (eikon) by Plato. This could be proved by analyzing not only the contents of the Timaeus but its textual structure as well. The fact that the notion of image gives structure to the physical logos in the Timaeus is foremost evident in the puzzle-box construction of the dialogue, always wavering between the necessity of giving a scientific account of its object (the nature of human world) and the unpossibility to accomplish this task. This appears clearly by analyzing the sequence of its textual parts and elements. The dialogue opens with an absence: “One, two, three; but where, my dear Timaeus, is the fourth of those who were yesterday my guests and are to be my entertainers to-day?” (17a) and goes forward by electing others as substitutes for the absent: “Then, if he is not coming, you and the two others must supply his place ”. This passage is commonly read as a reminder of the connection between the present dialogue and the one immediately preceding: the Republic. The discussion about the constitution of ideal state should have left the space open for the description of the state in the concreteness of its living affairs, first of all in a situation of radical movement: war. This substitutional structure appears again in the next section, where it is said that imitators, poets and sophists cannot give any realistic account of the constitution of the state as a living entity. Rather should be Timaeus, a mathematician, the one who can give an adequate description in terms of plausible image (eikon) of what a state in a situation of war must be. Two kind of image are
here at stake: the one proposed by false imitators, incapable to lead to the right direction (to the truth) and the one offered by Timaeus: one someway more apt than the others to let reality emerge. But the first account of Timaeus is not only presented as an eikon, even plausible: it is also made of intertwined eikones and speaks essentially according to its nature: human world, the only one we can speak of, belongs to the realm of becoming (genesis), because it shows the constant change of phenomenena and it is accessed through the data conveyed by senses. Or, to be more exact, through the transformation caused in the sense-organs by external inputs. Here comes an assertion which constitutes the first axiom of Plato’s (Meta)Physics: “everything that becomes or is created must of necessity be created by some cause, for without a cause nothing can be created. The work of the creator, whenever he looks to the unchangeable and fashions the form and nature of his work after an unchangeable pattern, must necessarily be made fair and perfect; but when he looks to the created only, and uses a created pattern, it is not fair or perfect.” (28ab). What here matters is first of all the qualification of the cause as pattern, model (paradeigma) of what is created. And further, 29b: “having been created in this way, the world has been framed in the likeness of that which is apprehended by reason and mind and is unchangeable, and must therefore of necessity, if this is admitted, be a copy (eikon) of something”. What is at stake here is something we should consider rather peculiar in the scenery of greek physical theory around the half of IV Century: if it was plainly common to consider the world of becoming (of transformation) caused, for in the realm of senses no transformation seem to happen without cause it did not appear so self-evident that the relationship between cause and model should be read as a relation pattern-copy. This happens upon the presupposition, drawn from the analysis of sensorial experience, that a resemblance should exist between the cause and the caused, the stimulus and the reaction. It was common to the Greek theory of sensation from Empedocles to Aristotle to consider sensorial experience based on the notion of likeness. Here, then, Plato applies a model drawn by the physical description to the relation between the two realms of being, reversing to a certain extent the nexus of foundation between them. That this is the case, can be showed by recalling the way in which the entire account of Timaeus is presented, (29cd): “If then, Socrates, amid the many opinions about the gods and the
generation of the universe, we are not able to give notions which are altogether and in every respect exact and consistent with one another, do not be surprised. Enough, if we adduce probabilities as likely as any others; for we must remember that I who am the speaker, and you who are the judges, are only mortal men, and we ought to accept the tale which is probable and enquire no further”. This apparent clarification shows, on the contrary, that the reversal of the foundation has already set itself in motion. From this point onwards, Plato pursued indeed a reversed course of argumentation: the description of the genesis of our world (kosmos) from God’s point of view. And still there is nothing so simple, because the discourse maintain itself on the level of the eikon, that is it attempts to give a likely account of what might be hidden in the mind of God. Obviously in assuming that “God” (or the Demiurge) is here acting in accord (an other platonic axiom) with his rational nature.

The complexity of this description has something to do with the intertwining of levels that here are at work and not only with its specifical contents and details. The eikon is here a discourse which claimed to speak in the name of God, as though as we may infer from the apparent legality of this world the presence of a rational project behind it. Timaeus’ logos replicates the ontological structure of an image, that is it gives access in a diminished way to something which cannot reveal itself as it really is. It provides a mediated access to a pure reality by opening a space of difference between our world and a rational pattern which must have constituted it from the beginning. Plato’s Metaphysics is precisely the opening of such differential space in which our world ceases to exist on its own and becomes an image of something else. And this is precisely the way in which an image works: apparently losing its own being and resulting diminished, but as a matter of fact increasing its being in becoming the physical means by which something more can announce its hidden presence in this world. Thus, as eikota logos, physical discourse is always a bivalent one. It speaks at the same time from the point of view of the image and on account of the model. It is a discourse structurally stretched beyond (meta) the bonds of its universe. Physics is always Metaphysics.

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2. *Timaeus*, 30bc: “Wherefore, using the language of probability, we may say that the world became a living creature truly endowed with soul and intelligence by the providence of God” (transl. Jowett 1892).
What we may now ask, once we understood the connection between image and pattern from a structural point of view, is what determines essentially this connection. That is to say: what the meta-nexus really contains and what makes it able to link in a mutual foundation physics and metaphysics. In other words we may ask: what belongs equally to the stance of the image and to the point of view of the pattern? One way is to proceed to infer the existence of a rational model by the presence of partially realized beauty, goodness or mathematical order in this world. These are features which may be recognized in this world only in a diminished and always relative form, and in this way they seem to defer the possibility of mathematical and ethical perfection on a pure theoretical level, so proving at least an ideal existence of the absolute. After Nietzsche’ Criticism, however, is not possible anymore to endorse this thesis without passing through the whole mess of objections and arguments relaunched by contemporay German and French Philosophy (Heidegger, Deleuze, Derrida etc.). But this does not mean to consider in principle the way which proceed by the analysis of the feature of physical world unapproachable. It is the same Nietzsche who gives us implicitly a trace of a possibile reapproach to this problem. His unintentional solution could be found by reflecting on the Metaphysics’ constitutive nexus: the meta insofar it is rooted in the notion of eikon, of image bearing a likeness. It may also be argued that Plato’s metaphysical foundation moves itself in a reversed manner compared to the one criticized by Nietzsche. The contents of the connection between the two worlds, the contents of the meta, must be feature which seem to pertain in the first istance to the physical world, not ideal properties which our world bears only in a diminished way. As a matter of fact, the main innovation of platonic perspective is to have brought features which were supposed to belong only and essentially to the physical world into the realm of the eternal and ideal being: life and movement. An operation which replicates on a cosmological level the ontological integration of not-being, being-different and movement as constitutive genres of Being in the Sophist. Movement and difference (variety, diversity) form together the life of Being according to which eternal being can effectively serve as pattern and ground of physical world. Many passages of Timaeus’ Text seem to confirm this approach. At 30cd “the Deity, intending to make this world like the fairest and most perfect of intelligible beings, framed
one visible animal comprehending within itself all other animals of a kindred nature”. This visible animal is called *to panteles zoon*, the being perfectly living (31b). The first thing which derives from this pattern is the unity of the skies, living being which contains all beings kind to him. Its visible and tangible nature implies that it is made of the elements that provide the principles of visibility and tangibility: fire and earth. Two further elements, water and air, are then introduced according to another ontological law: on cannot mix two elements to shape a physical figure without the mediation of a third one. And one cannot shape a solid out of a surface without the further mediation of a fourth element. What it comes after are the rules for the shaping of our world into a sphere and the definition of physical world as the living being which keeps in itself all the others. What it comes out from this description is basically the fact that the characteristics of our physical world do not respond to any theological presupposition. On the contrary, this description keeps on working even if one read the figure of the Deity as a metaphorical notion: the expression of the innate physio-biological functionality of the physical world. It does not seem hasty to affirm that platonic cosmos might work on the only basis of the same two principles which in their unity give structure to the organization of living beings in contemporary theories of life: *information* (a pattern oriented to the formation of a particular shape) and *energy* (the quantity of movement needed to realize the pattern). We won’t give any right to Plato’s speculation if we will keep on considering his physical theory an ontological contradiction or – at best – the result of theological, physically undemonstrable, presuppositions. Not even if we consider the whole of the *Timaeus* a spiritualized version of actual biological themes. Plato’s Physics deals ontologically with notion of *life*: that is it defines living being as capable of self-movement, finality and self-organization in a costant evolution of levels ruled by the efficiency and economics which may be recognized in the variety of its forms. Its last object is the living being which best fulfils these criteria. Maybe its only unavoidable concession to spiritualism is the deep conviction that such a living being shall do

exist to form the unity of all the others (*anima mundi*). One may raise the doubt if this conviction is well-based or not. But, in doing this, one has to take position about the debate concerning the notion of *soul*. Which is indeed a core element of the platonic construction, but also a notion which can be converted in its definition to be accepted in every physical debate. So we did along our discussion: we have tried to convert the notion of *soul* in the ability of life as self-movement to aim at the realization of a pattern (*energy* and *information*). In this way we have tried to bypass – at least so far - the objections which could be prejudicially posed to a paper dealing with Plato, the *Timaeus*, Myth, Poetry, God and Soul, in a Congress about *Physics*.

References

Jowett 1892 = The Dialogues of Plato translated into English with Analyses and Introductions by B. Jowett, M.A. in Five Volumes.-3rd edition revised and corrected (Oxford University Press, 1892)

