

Time and Atemporality of Time in Hegel's *Naturphilosophie*

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Abstract What is the meaning of atemporality in Hegel's philosophy? What is the relationship between philosophy and physics, according to Hegel's *Naturphilosophie*? And why should Hegel's reading of Plato's *Timaeus* be interesting for understanding both his idea of atemporality of time and the philosophical approach to the problem of the origins of the world? This Chapter addresses these questions by analysing some passages of Hegel's writings, from the *Dissertation on the orbits of the planets* (1801) up to the *Encyclopedia* (1817/1827/1830). Hegel tackles the concept of atemporality (*Zeitlosigkeit*) when he refers to the idea or to the ideal dimension as considered *in se* and *per se*, the question about the eternity or the beginning of the world emerges as an integral part of the problem. The Chapter includes Hegel's reconsideration of Plato's *Timaeus* up to the arguments about the origins of the world and the notion of life in the second part of the *Enzyklopädie der philosophischen Wissenschaften im Grundrisse* devoted to *Naturphilosophie*.

1 Scientific Knowledge and Philosophy around 1800

In his analysis of the “cosmological argument” in the *Critique of the pure reason*, Immanuel Kant questioned the link between the reflection about time and the discourse about the origins of the world: rational cosmology cannot avoid the antinomies of pure reason, because it deals with a notion of world as a totality which is not a phenomenal object (CpR, B 633–640). In Kant's first antinomy of the pure reason, the notion of time plays a crucial role: if the world has a beginning in time, the object is smaller than our concept and we must limit our conceptualisation; on the contrary, if there is no temporal beginning and the object is greater than our concept, we have an infinite regression in time and thus it is impossible to define the world as

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a whole.¹ Kant set the limits of pure reason when applied to objects lying beyond the empirical perception and generated a fracture between philosophy and the sciences of the universe, significantly determining the philosophical debates around 1800 in Germany. His dismissal of the connection between the notion of time and that of the world's origins had an impact on the thought of German *Naturphilosophen*, who aimed at reconsidering the relationship time-and-the-world from other perspectives.

In a manuscript comment on Plato's *Timaeus* (early 1794), the young philosopher Friedrich Schelling analysed the Platonic description of the beginning of the universe in *Timaeus* keeping an eye on the new theory of knowledge provided by Kant's critical philosophy.² In his comment as well as in his writings of *Naturphilosophie*, Schelling surveys the notions of time, the world, and life, by showing the complex intertwining of philosophical investigation and scientific debates. His writings of the years 1797–1799 have been considered an example of the attempt of philosophers to reconcile speculative philosophy with the empirical scientific knowledge of the time (Follesa 2023). Schelling wanted to provide a theoretical support system in which every discovery and scientific theory would have been perfectly conciliated to one another. A fundamental assumption of Schelling's *Naturphilosophie* was the thesis of an original coincidence between nature and the universal spirit.³

On the footsteps of Schelling's, Georg Friedrich Hegel took part to the philosophical and scientific debates with his doctoral dissertation about *De orbitis planetarum*, discussed in Jena in 1801.⁴ Many scholars noticed that, in comparison to the young Schelling, who manifestly had an interest for the recent discoveries in physics, astronomy, chemistry, and life sciences, Hegel's approach to the sciences has been essentially negative and characterized by a general detachment and misunderstanding of scientific theories. Moreover, scholars insisted on Hegel's claim about the superiority of philosophy above the sciences, his dismissal of empirical research and his remarkable errors concerning calculations and definition of physical laws.⁵ His dissertation on *De orbitis planetarum* was considered as a proof of lack of scientific expertise and the literature underlined how his proposal opposed Newtonian physics (see Adler 1987). His rough 'mistakes' about the calculations that describe the position of the planets in the solar system have been criticized together with his return to Platonic or Aristotelian ideas.⁶ Valerio Verra distinguished Hegel's "errors" from the misleading belief that he had no interest for empirical and natural sciences (Verra 2002, 10-11), while Cinzia Ferrini investigated the historical context and demon-

¹ On Kant's antinomy and regressive series, see De Bianchi (2013); De Bianchi (2015); Failla (2013); Proops (2014).

² The reader can refer to Schelling (1794), Schelling (2008) and Schelling (2016) for different editions and commentaries.

³ For a discussion of the main tenets of Schelling's philosophy of nature, see Heckmann, Krings and Meyer (1985); Moiso (1990); Follesa (2014); Zammito (2018).

⁴ See Hegel (1986); Hegel (1987).

⁵ On this subject, see Harris (1974); Ferrini (1985); Horstmann and Petry (1986); Ihmig (1987); Ferrini (1991); Petry (1993); Ferrini (1996); Moiso (1997)

⁶ See for instance Closs (1908); Oeser (1970); Shea (1986); Ruggiu (2013) and Ziche (2013).

strated Hegel's acquaintance with scientific and methodological problems discussed by scientists of his time (Ferrini 1997, 150).

Indeed, Hegel's endeavour is to provide a conciliatory perspective for approaching philosophy and physics within a unitary discourse. He carefully examines the different methods and metaphysical perspectives that underlie each discipline and points out the philosophical meaning of the concepts that are "usual to the physics" (Verra 2002, 12). In the first part of his dissertation, Hegel's directs his argument against the "experimental philosophy," a term that he uses to refer to the English empirical tradition. The empirical (or experimental) philosophy aims at constructing a philosophical conception starting from perception and according to a mechanical perspective. As a result of this approach, philosophy is a mere abstraction and consists in fragmented, detached, unnecessary and finite parts of knowledge that have nothing to do with "true" philosophy, as an absolute and universal knowledge:

True philosophy repudiates the principle of experimental philosophy, this principle being sought in a mechanics imitating nature on the level of dead matter and effecting a synthesis of absolutely different forces in any body. Now what pertains to the imitation of nature must be entirely cast aside in the cognition of nature itself, and in physics room must be given to neither chance nor whim (Hegel 1987, 286).

Any reader, who is not unfamiliar with philosophical thought, may easily connect these ideas to a cornerstone of the history of philosophy, the *Timaeus*, where Plato distinguishes the "real" knowledge of immutable intellectual objects from the opinion, which depends on the senses:

We must begin by making the following distinction: What is that which always is and has no becoming, and what is that which becomes but never is? The former is grasped by understanding, which involves a reasoned account. It is unchanging. The latter is grasped by opinion, which involves unreasoning sense perception. It comes to be and passes away, but never really is (Plato, *Tim.* 28 d-e).

The reference to Plato⁷ is helpful to understand Hegel's approach to the relationship between physics and philosophy in *De orbitis* and his definitions of time and atemporality as strictly related, on the one side, to the problem of the origins of the world and, on the other, to the concept of life, which underlies both Hegel's *Naturphilosophie* and Plato's conception of the world in *Timeaus*.⁸

⁷ For the importance of Plato for German Idealism, especially as concerns the world-soul and the problem of the world's origins, see for instance Viellard Baron (1979); Greipl and Schönberger (2017); Beierwaltes (2011); Helmig and Marongiu (2020).

⁸ See Hegel (2011, 207). The problem of time has been widely discussed among Hegel's scholars and philosophers in the last century. From Heidegger's *Sein und Zeit* up to the recent studies, Hegel's philosophy of time has been considered, in particular, from the perspective of Hegel's *Phenomenology of Spirit* and his philosophy of history, where the notion of time plays a crucial role (Brauer 1982; Bodei 1984; Rametta 1989; Luckner 1994; Chiereghin 2000; Apple 2008; Bouton (2000) and McCumber 2014).

2 Time and the World: Hegel's Reading of Plato

Hegel held several lectures on the history of philosophy in Jena in 1805/06, in Heidelberg 1816/1818 and in Berlin from 1819 onwards. In the *Vorlesungen über die Geschichte der Philosophie*, Hegel explored the steps of the history of philosophy, by paying special attention to the role of concepts and images in Plato's dialogues. The "sensible modes and sensuous images" adopted by Plato in his writings are "directed to representation and not to the concept in itself"; for this reason, mixing myth and philosophy expresses an "impotence of thought that does not yet know how to express itself in its own terms" and aims at disseminating philosophical knowledge among the common people (Hegel 2011, 183). Despite the positive effect of reaching many people through the strength of images, the large use of myths in Plato's dialogues brings with it a dangerous implication: "many propositions are presented as doctrines of Plato that are really nothing of the sort," and this is particularly true with *Timaeus*. In this cosmological dialogue, Plato's description of the formation of the world is not expressed with purely philosophical words but through the so-called "representational mode" (see Plato *Tim.* 40d-41d; Hegel 2011, 183).

Contradictions may derive from the nature of mythological narrative which is based on images and analogies and disappear through a deeper examination of concepts in non-analogical terms (Hegel 2011, 212). The German philosopher attributes to Plato the idea that "with our eyes we distinguish everything – beginning with day and night, we have arrived at distinctions involving the months, the seasons, the years. This gave us knowledge of time and of history, and so we progressed to philosophy" (Hegel 2011, 184).⁹ Despite his critique of the use of the representational mode, Hegel appreciates the Platonic philosophy as "the consciousness of the supersensible domain, of what is true and right in and for itself" (Hegel 2011, 185). Many meanings pertain to the term "philosophy"; in a Platonic sense, philosophy is the knowledge of the absolute, of what is *in se* and *per se*: what is universal and eternal is philosophical and thus it does not belong to temporality and change. Platonic philosophy belongs to atemporality and may be also considered an "idealism" which assigns to the doctrine of reminiscence the role of "foundation or general basis" of knowledge (Hegel 2011, 193). In the Platonic philosophy, as it is expressed in *Timaeus*, the concepts of eternity and divine are not apart from the notion of "life":

Whatever is undifferentiated is lifeless; hence the active, living, concrete universal is what differentiates itself inwardly but remains free in doing so. This freedom of differentiation consists in the fact that in its own other, in the many, in what is differentiated, the One is identical with itself. This constitutes the truth – the sole truth and point of interest for knowing – in Platonic philosophy; unless we know this about Platonic philosophy, we do not know the main thing (Hegel 2011, 202).¹⁰

⁹ Hegel slightly changes this paraphrase by putting "history" in place of "the nature of the universe."

¹⁰ In the *Parmenides* Hegel could find the definition of "pure thoughts" as something 'alive' and 'not dead.' Thus, "pure thoughts" are 'self-moving and active,' and their activity "consists in making themselves into their own other" (Hegel 2011, 206).

According to Hegel's interpretation, there are two worlds – or two ways of approaching the problem of the world: “a divine world” which is juxtaposed to its copy, that is “the world where generation occurs, the visible world” (Hegel 2011, 214). The latter is generated together with time, the “self-moving image of the eternal” that proceeds “according to number.” However, since time is the “immediate image of the eternal,” it may be also considered as “authentic time,” that is, as an eternal concept and an “eternal present,” that “does not have future and past” (Hegel 2011, 214). On the other hand, the “real” parts of the world (“the sun, moon, and planets”) delimit the “numerical relationships of time” so that ideal time can become a real being (Hegel 2011, 214). The concepts of time and the world have thus a two-fold nature: they can be understood as ideal concepts, which are known by the intellect, and as real beings, which are known by the sensible perception and, for this reason, are subject to change (Hegel 2011, 214). Hegel goes further and explains the notion of “eternal world” as a concept that entails two meanings: on the one hand, it implies the indeterminate idea of a world which is identical with itself; on the other hand, the world is “the other” if it is related to the idea of an immutable being.

Accordingly, the idea of the “world” includes the universal principle of the passage from an indeterminate world to another, thereby including the possibility of all changes. It is here that Hegel refers to the concept of “chora,” the “formless principle” and “wet-nurse (*trophos*) that sustains all things” and which is “receptive to any and every form” (Hegel 2011, 215). The idea of “world” encompasses the idea of “matter” or “passive matter” as clearly distinguished from the notion of “form” as an active principle (Hegel 2011, 215). Matter, as we read in the *Lectures*, is “universally substantial” and receives all the forms and geometric figures that Plato describes in *Timaeus* by appealing to a Pythagorean language (Hegel 2011, 214). Similar ideas are expressed by Hegel in a manuscript dated 1804/1805 and entitled *Logic, metaphysics, philosophy of nature* which focuses on the notion of “ether” or “absolute matter,” which corresponds to nature considered in itself and as a living being (Verra 2002, 16).

3 Atemporality and the Eternal Living Being

In the second part of the *Encyclopaedia of the Philosophical Sciences*, where Hegel exposes his *Philosophy of Nature*, the focus on time and the origin of the world reveals Hegel's affinity with Plato's cosmological narrative of *Timaeus*.¹¹ In an additional note to §247 of the section “Begriff der Natur” (Concept of Nature), Hegel's includes an important distinction between the idea of the world conceived as a whole and the “natural world,” or, more simply, “nature.” The latter is the physical world that is subject to change and juxtaposed to the universal concept of the world as an eternal totality. This distinction essentially corresponds to two different ways of understanding the world – as already expressed by Plato in *Timaeus* – empirical

¹¹ See Hegel (2004, §247, additional note, 13).

perception and pure intellectual intuition. According to Hegel, clear distinction of this kind is preliminary to solve the issue of the *eternity of the world*:

The question of the eternity of the world (this is confused with Nature, since it is a collection of both spiritual and natural objects) has, in the first place, the meaning of the conception of time, of an eternity as it is called, of an infinitely long time, so that the world had no beginning in time; secondly, the question implies that Nature is conceived as uncreated, eternal, as existing independently of God. As regards this second meaning, it is completely set aside and eliminated by the distinctive character of Nature to be the Idea in its otherness. As regards the first meaning, after removing the sense of the absoluteness of the world, we are left only with eternity in connection with the conception of time (Hegel 2004, 15).

If it is possible to speak of the “eternity of the world,” it means that the world has, or had, no beginning in time and has always existed. This statement implies, however, its full independence from God and, therefore, the identity between God and nature. Nature, in its being, is however “the other” of God, that is, God “in its otherness,” or, to use Hegel’s words, God “between the idea and nature.” This definition of the world coincides with the first meaning which is the world in its absoluteness, the world as a universal concept. According to this position, the world had no beginning in time, and this implies a more detailed analysis of the concept of time and of the relationship between time and eternity:

Eternity is not before or after time, not before the creation of the world, nor when it perishes; rather is eternity the absolute present, the Now, without before and after. The world is created, is now being created, and has eternally been created; this presents itself in the form of the preservation of the world. Creating is the activity of the absolute Idea; the Idea of Nature, like the Idea as such, is eternal (Hegel 2004, 15).

The juxtaposition between the concept of eternity (what has neither a “before” nor an “after” and belongs to an “absolute present”) and that of the world, as a finite being which has been necessarily created (because this is implied in the idea of being finite), appears neat at a first glance. Hegel however introduces the distinction between the world as a physical reality and the world as a universal concept and, in this way, he can establish a correspondence between the notion of “eternity” and that of “creation” – a correspondence that sounds very closely to the Neoplatonic definition of “eternal creation,” or “eternal emanation” of the finite world from the One. The world as a universal concept encloses the idea of a continual creation or derivation from the absolute Idea, which is characterized by an eternal activity. Exactly this idea of eternal creation goes hand in hand with Hegel’s conception of an “eternal life,” conceived as an “eternal creative process” and attributed to God. According to Hegel’s interpretation, this definition agrees with Plato’s definition of God in *Phaedrus* and *Timaeus*. The question about the eternity (or, alternatively, about the beginning) of the world has thus a double answer, or we can react to it, with Hegel, from two different perspectives. A sophisticated reasoning would demonstrate the impossibility to provide “a plain, positive answer” to the question “whether the world has, or has not, a beginning in time.” This is because, Hegel continues, “a plain answer is supposed to state that either the one or the other is true” and, he concludes “the plain answer is, rather, that the question itself, this ‘either-or,’ is badly posed” (Hegel 2004, 16). Thus, let us consider now two perspectives that

enable us to approach the problem of the “eternity” of the world and the problem of its “beginning”:

In the question whether the world or Nature, in its finitude, has a beginning in time or not, one thinks of the world or Nature as such, i.e. as the universal; and the true universal is the Idea, which we have already said is eternal. The finite, however, is temporal, it has a before and an after; and when the finite is our object we are in time. It has a beginning but not an absolute one; its time begins with it, and time belongs only to the sphere of finitude (Hegel 2004, 15-16).

The problem of time is not completely separated from the problem of the beginning of the world (in time). According to this view, the world, as such, implies the idea of a beginning, a creation, which distinguishes it from the concept of God; and, considered as a universal concept, the world has been eternally created. At the same time, the world can be considered as a finite being: one may ask the question if, in this case, the (finite) world has or does not have a beginning *in time*? The world, as such, is “created.” However, this does not immediately mean that the world has a beginning in time. As a totality, indeed, the world has a timeless dimension, is an atemporal (eternally) created being and lives in its eternal present standpoint, the world is an eternal being, that is, a universal idea, which is eternally present and eternally living. Understanding this kind of world, the universal concept of the world, pertains to philosophy, as a “timeless comprehension, of time too and of all things generally in their eternal mode” (Hegel 2004, 16). On the other hand, there is the natural world, everything that we perceive through the senses as a part of nature in its variety and dynamism: this world is situated on a finite, spatial and temporal dimension and thus belongs to time. The connection between being and knowing, between ontology and gnoseology, which is the heart of Plato’s narration in *Timaeus* is another crucial element for understanding the problem of time and of timelessness in Hegel. It is precisely the change of perspective that determines, according to Hegel, the possibility to affirm something about the beginning of the world in time:

If we are talking of the finite, then we have both a beginning and a non-beginning; these opposed determinations in their unresolved and unreconciled conflict with each other, belong to the finite: and so the finite, because it is this contradiction, perishes. The finite is preceded by an Other, and in tracing out the context of the finite, its antecedents must be sought, e.g., in the history of the earth or of man. There is no end (*Ende*) to such an inquiry, even though we reach an end (*Ende*) of each finite thing (*Endliches*) (Hegel 2004, 16).

The fact that we have two possible answers to the problem of the beginning of the world depends on the fact that “we are talking of the finite,” which has “both a beginning and a non-beginning.” For its intrinsic contradiction the finite begins and perishes, being preceded and followed by other finites. And if we go back in the chain of the finites, looking for the first beginning of the series, there is no such thing as a beginning or end, since we are dealing with finite things:

Time has its power over the manifoldness of the finite. The finite has a beginning, but this beginning is not the First; the finite has an independent existence, but its immediacy is also limited (Hegel 2004, 16).

It does not make any sense to investigate the very beginning of the world as a finite being, since we would risk lingering curbed in an endless regressive process. The finite world has a beginning, but also a “before” and an “after” of this beginning, because we are dealing with “relative” notions:

When ordinary thinking forsakes this determinate finite, which is preceded and followed by other finites, and goes on to the empty thought of time as such, or the world as such, it flounders about in empty ideas, i.e. merely abstract thoughts (Hegel 2004, 16).

It is impossible to determine the concept of the world as such or of time as such starting from the consideration of the empirical world that is finite and has a beginning in time. By following this path, namely by establishing an arbitrary beginning of the (infinite) series of finite, we just have “merely abstract thoughts” that are “empty.” Hegel’s notion of time, the notion of what is before and what is after, agrees with Plato’s statement in *Timaeus* 28 b, that is the “creation” of time as a copy of eternity according to number carries out an ordering and regulating function in the physical world. On the other hand, according to Hegel, we can talk about another kind of time, the infinite time, i.e. time as universality and totality, which has nothing to do with the world of sensible things, and does not derive from the consideration of the succession of things in the natural world but is related to that of representations and concepts:

Infinite time is only an idea,¹² a going into the beyond, which remains infected with the negative; a necessary idea so long as one is confined to a consideration of the finite as finite. However, if I pass on to the universal, to the non-finite, I leave behind the standpoint where singularity and its alternate variations have their place. In our ordinary way of thinking, the world is only an aggregate of finite existences, but when it is grasped as a universal, as a totality, the question of a beginning at once disappears. Where to make the beginning is therefore undetermined; a beginning is to be made, but it is only a relative one (Hegel 2004, 16).

Changing the perspective and considering the infinite not as whole deriving from a series of finite items, but as an immediately given whole, leads to a change in the way in which Hegel considers the notion of “life” that is closely connected to that of “eternity.” Eternal life is not the “natural life”; an immortal living being does not belong to time but has a life beyond time, in a timeless, logical, ideal dimension – a crucial concept for German Idealists. An immortal living being does not belong in the physical, sensible world, but in the ideal one as a living idea. Thus, in Hegel’s view, there is no juxtaposition between philosophy, as the science of absolute concepts, and the scientific investigation of the finite world.

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¹² In German we find the term ‘Vorstellung’ that is translated in English with ‘idea,’ here the Italian translation as ‘representation’ helps the reader in clarifying the meaning.

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