

TIME, COUNT AND SOUL IN ARISTOTLE. AN INTERPRETATION OF *PHYSICA* IV.14, 223A25-26*

SERGIO JAVIER BARRIONUEVO

Universidad Nacional de General Sarmiento

Universidad de Buenos Aires

Consejo Nacional de Investigaciones Científicas y Técnicas

Resumen

El estudio del tiempo en *Physica* IV.10-14 presenta grandes dificultades, una de ellas es el vínculo entre tiempo y alma realizada en 223a21-28. Este pasaje fue discutido por varios especialistas modernos durante el siglo XX. Si bien no hay consenso unánime, la “interpretación realista” estuvo muy extendida durante el siglo pasado. En este trabajo me propongo discutir un pasaje de la premisa 223a25-26 en el argumento de Aristóteles respecto de este vínculo. En primer lugar, rechazo la “interpretación realista” según la cual el tiempo como número puede existir independientemente del alma. Luego, muestro que la numerabilidad del tiempo impide su independencia respecto del alma, a diferencia de lo que ocurre con ‘lo sensible’.

Palabras clave: Aristóteles, tiempo, alma, numerabilidad, Física.

Recibido: 18/04/2016. Aceptado: 14/07/2016.

* This paper was supported by a doctoral fellowship from CONICET and has been elaborated within the framework of an ongoing research project UBACyT 2013-2016 (Code: 20020120100073), supervised by Julián Gallego and Carlos García Mac Gaw at the University of Buenos Aires (Argentina). It also relates to the activities developed under the scope of the projects ICI-UNGS 2015-2016 (Code: 30/1109), supervised by Marta Madero and Eleonora Dell’Elicine at the National University of General Sarmiento (Argentina), and PICT-2015-2064 (Res. 240/16), supervised by Diego Paiaro at National Agency for Science and Technology Promotion (Argentina).

Abstract

Aristotle's study of time in *Physics* IV.10-14 shows great difficulties, one of these is the link between time and soul made in 223a21-28. This passage was discussed by several modern scholars during the twentieth century. There is no unanimous consensus, but the "realistic interpretation" was widespread during the last century. In this paper I propose to discuss the interpretation of the premise 223a25-26 in Aristotle's argument about the time-soul link and reject the "realistic interpretation" of this passage whereby the time as count would exist independently of the soul. I intend to show that time's 'countable' feature does not exist independently of the soul, unlike what happens with the 'sensible'.

Keywords: Aristotle, time, soul, countability, *Physics*.

Introduction

The study of time on Aristotle, *Physics* IV.10-14 presents, among other things, an obscure argument over time-soul link (223a21-28). The obscurity of the passage lies not only in the structure of the argument, but also in its hermeneutically problematic premises. I propose to discuss the interpretation of the premise 223a25-26, rejecting the 'realistic' interpretation proposed by some scholars, by which time as number have independent existence of the soul. I intend to show that in the case of time the character of 'countable' [*arithmetón*] does not exist independently of the soul, unlike what might happen with the 'sensible' [*aisthetón*].

In this paper, first, I will discuss the guidelines of Aristotle's argument about the link between time and soul; second, I will outline the basic structure of the 'realist' interpretation; and third, I will argue in favor of the time dependence with respect to the soul arguing that, for Aristotle, (a) the ϕ -ability of the count is of a different nature to that of sensible objects, and (b) the difference is the absence of 'substrate' in count.

The Aristotelian argument

The passage of Aristotle on the link time-soul is presented obscurely and concise¹. Aristotle after defining time as count [*arithmós*]² develops the

¹ This passage has been discredited by several scholars, the argument is that Aristotle takes no passage in the problematic of time, as well as provides an answer that would be too brief and unsatisfactory. Ross (1959: 92) argues that "Aristotle arises, without very definitely answering, an important question when asks whether there would be time if there were not soul". However, I agree with Vigo (2006: 260).

attributes of 'time-count' analyzes the problems of defining it that way. The passage is:

One might find it a difficult question, whether if there were no soul there would be time or not. For if it is impossible that there should be something to do the counting, it is also impossible that anything should be countable, so that it is clear that there would be no number either, for number is either that which has been counted or that which can be. But if there is nothing that has it in its nature to count except soul, and of soul [the part which is] intellect, then it is impossible that there should be time if there is no soul, except that there could be that *X* which time is, whatever *X* makes it what it is; as if it is possible for there to be change without soul. The before and after are in change, and time is these *qua* countable. (*Phys.* IV.14, 223 a 21-28, trans. Hussey, 1993)

II. The «Realistic» Interpretation

The advocates of 'realistic interpretation' of Aristotle reconstruct the as follow:

- (i) the time is a kind of count;
- (ii) all what is count is either counted [*erithmémenon*] or countable [*arithmetón*];
- (iii) the beings with soul (i.e. with *nous*) are the only that has the capacity of counted [*péphuken*];
- (iv) the motion as counted exist independently of soul.

Conclusion,

- (v) if the time is counted the same way as the motion, it can exist without the soul.

In this paper I intend to show that Aristotle rejects the validity of the argument of independence of the time existence in relation to the soul, because one of its premises is *impossible*.

In the most widespread interpretation of this passage of Aristotle argued that the statement "there is nothing that has it in its nature to count except soul, and of soul [the part which is] intellect", establishes the dependence of ϕ -able with respect to what is 'capable of doing ϕ '. According to this reading Aristotle would be committed to the following principle:

² Aristotle's definition of time is a *locus classicus* of Western tradition: "Time is a count of change in respect of the before and after" (*Phys* 4.11, 219 b 1-2). On the other hand, he notes that the concept of count can be misinterpreted regarding its link with time, since it has an ambiguous sense; for this reason is limited to restrict the use of the notion of count with respect to time, saying that time-count is: "that which is counted and countable" (*Phys* 4.11, 219 b7). Cf. Derrida (1968: 68).

(P1) If there is a substrate- ϕ such that is ϕ -able, it is not necessary to have ‘being able to ϕ ’ so that there is ϕ .

This principle (P1) is inferred from the discussion on existence of ‘the sensible’ in *Metaphysics* IV.5, 1010b33-5 (“the substrata which cause the sensation should not exist even apart from sensation is impossible”, trans. Ross, 1982). This principle would seem ontologically committed with the ‘priority’ of the ‘substrate of ϕ ’ to what is ϕ -able, which would affirm its stay in existence independently of ‘beings capable of doing ϕ ’³. Therefore, from (P1) follows this corollary:

(C1) It is impossible that ϕ -able beings necessarily exist only if there are beings able to ϕ .

According to this reasoning, if we consider the question of ‘priority’⁴ developed by Aristotle in *Metaphysics* and *Categories*, this principle would be linked to the “ontological priority” or “prior in respect of nature and entity” (*Met.* V.11, 1019a2-14). That principle would be formalized as follows⁵:

(OP) X is prior of Y in respect of nature and substance, if

(I) X can be without Y, and not viceversa (1019a3);

(II) because ‘being’ has multiple meanings (1019a4-5), we can apply this priority:

(IIa) according to the scheme of categories, the *ousía qua hupokeímenon* of accidental attribution is prior <to accidental predicates> (1019a5-6);

(IIb) according to potency and act, in the case of compounds of distinguishable elements according ontological mode of potency and act, something is potentially prior, while reaches the actual existence if ‘the whole’ to which it belongs dissolves (1019a6-11).

So applying (OP) to (P1), the advocates of ‘realistic’ reading argue that time (as count) exist independently of the soul (as counting agent). This interpretation might be plausible in the case of ‘the sensible’ [*tò aisthetón*]⁶,

³ For Ross (1997 I: 278) this sentence will be in concordance with *DA* III.2, 425b25, and with *Cat.* 7b36-8a12 where “he argue the *aisthetón* is prior to the *aísthesis* and not destroyed by its destruction; but here *tò aisthetón* seems mean the sensible body, what Aristotle here calls *tò hupokeímenon*.” This suggestion is followed by Calvo Martínez (2000: 182), who translates *tò hupokeímena mé einai* by “no existirían las cosas” [things would not exist].

⁴ ‘Priority’, i.e. *prôton* and *próteron*, is a *legómena pollakhôs* and their meanings are not explained and assume many times in his application. For a discussion of the distinctions made by Aristoteles both *Metaphysics* and *Categories*, see Vigo (1989: 24-46). For a ‘soft’ formalization, see Mie (2003: 98-102).

⁵ The formalization of this principle in Mie (2003: 101-102).

⁶ I will not discuss here the interpretation of the passages of *Metaphysics*, since it would take a much longer discussion that would exceed the limits that I propose in this paper. These are brought up based on certain arguments I intend to refute.

but not necessarily in the case of time. Since, on the one hand, ‘the countable’ [*tò arithmetón*] is not ϕ -able in the same way it is ‘the sensible’ [*tò aisthetón*]; because, on the other hand, time has not a ‘substrate’ [*hupokeímenon*] as ‘the sensible’ [*tò aisthetón*] has.

III. Dependence on the ϕ -able to what ‘capable of doing ϕ ’

First, I can say that ‘the sensible’ is ϕ -able in a different way than ‘the countable’: ‘the sensible’ [*tò aisthetón*] as ϕ -able depends on ‘sensible objects’ as separate entities, i.e. ‘entities’ [*ousíai*] as ‘substrate’ [*hupokeímenon*]. In this sense, when Aristotle argues that “if only the sensible exists, there would be nothing if animate things were not; for there would be no faculty of sense” (*Met.* IV.5, 1010b30-31, trans. Ross, 1982), should be read as: “if there is a world where what we call ‘the sensible’ has existence and there are no beings capable of feeling them, in this world would it not be ‘sensible’” (i.e. otherwise it exists, but not as ‘the sensible’). Therefore, in this case, what operates as a cause of ‘the sensible’ [*tò aisthetón*] may persist even though it does not affect ‘the sensation’ [*aísthesis*], since the ‘being’ of what remains is not defined for affecting, so that ‘the sensible’ [*tò aisthetón*] is presented as a quality residing in the ‘entities’ [*ousíai*]⁷.

‘The countable’ is ϕ -able so that if this is not possible, it would not have ‘number’. Since ‘count’ is such as either ‘that which has been counted’ [*erithmémenon*] or ‘that which can be counted’ [*arithmetón*] (223a24-25). However, Aristotle puts the center of the argument on the link between *erithmémenon* (the counted) and *arithmetón* (the countable) regarding the count, focusing on how this is predicated concerning time. These two characteristics affect time-count of different ways: *erithmémenon* characterizes it as *actual*, while *arithmetón* as *possible*. So the structure of time-count develops between ‘what has been’ and ‘what can be’ as constituent elements of the count and hence time. ‘The counted’ expresses a quality that can be attributed to the ‘count’ as character that resides in it. While ‘the countable’ indicates that the count ‘is’ of essential mode, this is, it cannot lock characteristic to be defined as ‘the count’. Therefore, ‘has been counted’ defines the number of attributive way while ‘countable’ does the essential way. But *arithmetón* has priority over *erithmémenon*, so “becoming ‘the count’ in count” needs as a condition ‘what can be counted’. Because of only what

⁷ Cf. *DA* II.5, 417b19-27; *Met.* V.15, 1021a29-b2.

‘will have been’ has in itself the ‘to be able to’⁸. So we can infer that the character of ‘countable’ to the count that represents the time comes as the central element in the discussion of the link time-soul.

However, there is a difference between the ϕ -ability of the ‘countable’ and of the ‘sensible’. While ‘the sensible’ is linked to ‘the sensation’ [*aísthesis*]; ‘the countable’, however, is linked to the ‘intellect’ [*noûs*], i.e. the intellectual capacity of ‘soul’. This can be seen clearly in *Physics* 223a25-6 where Aristotle says: “there is nothing that has it in its nature to count except soul, and of soul [the part which is] intellect”. Therefore, ‘the countable’ of time is characteristic of ‘intellect’ [*noûs*], as the count in general is, while ‘the countable’ doesn’t determine a separate entity. Its definition is formulated only assuming their separation, i.e., *as if* they were separated. Aristotle called this “separation intellect”⁹. Therefore, I can say that for ‘the countable’ Aristotle is following a different principle than (P1). From which I may formulate as follows:

(P2) There is no possible world in which what is ϕ -able, under the assumption of his ‘separation in the intellect’, exist without ‘beings capable of doing ϕ ’.

I will not enter here into a discussion of the ontological scope of this principle, but simply postulate it as a ‘noetic’ alternative to (P1). With the formulation of this principle, then, it would be raised duality of potency: (a) the potency of the external object (P1), (b) the potency of the agent (P2).

Second, we find that the ‘realistic’ readings, though not exclusively these, often take the ‘now’ [*nûn*] as the *hupokeímenon* of time. So this would allow applying (PO) in the sense of (IIa): “accidental attribution is prior <to accidental predicates>”. Such interpretations are based on the standard reading of *hó pote ón* formulated in 223a27¹⁰. According to this interpretation in the formula should read the ‘now’ is the *hupokeímenon* of time as substantial unity of ‘the before’ [*tò próteron*] and ‘the after’ [*tò hústeron*] in mo-

⁸ On cases in which the potency may be prior to the event, see the beginning (PO) ‘ontological priority’ (*Met.* V.11, 1019a2-14) as developed above. In this case we should have in mind that would correspond to the case where “X is prior of Y in respect of nature and entity, if according to potency and act, in the case of compounds of distinguishable elements according ontological mode of potency and act, something is *potentially prior*, while reaching the actual existence if ‘the whole’ to which it belongs is dissolves”.

⁹ Cf. *Phys.* II.2, 193b34ss; 194a9-12. Cf. Boeri (1993: 175-176), Mie (2003: 96 n. 11). On the ‘Philosophy of Mathematics’ in Aristotle, see Hussey (1993: 176-184).

¹⁰ The analogy between *hó pote ón* and *hupokeímenon*, was established by the ancient commentaries (cf. Philoponus 717: 30-32; 718: 1-3; 720: 27-29; Simplicius, 712, 20-27), that interpretation was taken up by some modern scholars and reworked in some cases reaching a standard interpretation. Cf. Barrionuevo (2013).

tion [*kínesis*]¹¹. The ‘now’ [*nûn*], therefore, would be the ‘substrate’ while it is in one and the other an invariable element, this is a ‘*per se*’ [*kath’ autó*] does not depend to some who refer. Therefore, in this reading, the ‘now’ it would be what remains after the succession of “nows”, which would at the same time the pre-eminent form of present.¹² However, Coope (2005: 175-176) states that “there is nothing about the meaning of the phrase that suggests that it refers to the *hupokeímenon*”¹³.

The phrase, according to our interpretation, says that time will exist in cases that it can be realized in a given moment in function of what constitutes it as such. But, as in this case, which is the time as such (i.e. as number) is ‘the countable’, then the ‘it can be’ has no existence in any possible world, while the ‘now’ and ‘what countable’ in time is not given as a *per se* [*kath’ autò*], i.e. as a ‘substrate’ of the time. This is because Aristotle would be ontologically committed to (P2) with respect to ϕ -able than with (P1) on the countability of time.

IV. Conclusion

In the present work it is showed that for Aristotle there cannot be independence of the time. Although this does not mean that he sees time as a *ens rationis*, but time is expressed in the activity of the soul. The proposed interpretation, therefore, highlights the place Aristotle gives the soul from the difference between the nature of the ‘sensible’ and ‘noetics’ entities, this interpretation does not hold the transcendence of the noetic, but the constitutive feature of soul as an ‘opening’ where temporality is actualized, since it is the “place” where all temporality is possible as a potency [*dúnamis*].

¹¹ Vigo (2006a, 66 n. 2), (1995, pp. 280, 248), (2006b, pp. 256-257) maintains the standard reading of Ross (1998: 611), its position cannot be included in the ‘realistic’ readings, though not in the ‘idealists’, because it believes that the *hupokeímenon* succession is provided by the movement itself.

¹² This reading of the ‘now’ [*nûn*] is defended by Heidegger, for a discussion of this interpretation see Barrionuevo (2012).

¹³ Cf. Berti (1997: 90).

References

Sources

- Boeri, M. (1993). Aristóteles, *Física, Libros I-II*. Buenos Aires: Biblos.
- Boeri, M. (2003). Aristóteles, *Física, Libros VII-VIII*. Buenos Aires: Biblos.
- Carteron, H. (1926). Aristote, *Physique: I-IV*. Paris: Les Belles Lettres.
- Charlton, W. (1992). *Aristotle's Physics Books I and II*. Oxford: Clarendon Press.
- De Echandía, G. (1995). Aristóteles, *Física*. Madrid: Gredos.
- Hussey, E. (1993). *Aristotle's Physics Book III and IV. Traslated with Introduction and Notes*. Oxford: Clarendon Press.
- Ross, W. D. (1982). *The Works of Aristotle*, 2 vols. Encyclopaedia Britannica.
- Ross, W.D. (1998). *Aristotle's Physics. A Revised Text with Introduction and Commentary*. Oxford: Clarendon Press.
- Vigo, A. (1995). Aristóteles, *Física (Libros III-IV)*. Buenos Aires: Biblos.

Critical Essays

- Barrionuevo, S. (2011). La capacidad productiva del *noûs* en Aristóteles (DA). In: C. Ames & M. Agrasti (comps.), *Actas de las Terceras Jornadas Nacionales de Historia Antigua / Segundas Jornadas Internacionales de Historia Antigua* (pp. 277-287). Córdoba: Universidad Nacional de Colombia.
- Barrionuevo, S. (2012). *Khrónos y psýkhe*. Sobre una lectura heideggeriana de Aristóteles. In: J. Smola and S. Torres (ed.), *Lecturas contemporáneas de la filosofía política moderna* (pp. 131-146). Buenos Aires: Universidad Nacional de General Sarmiento.
- Barrionuevo, S. (2013). Nota sobre la fórmula *hó pote ón* en Aristóteles (*Physica* IV.14, 223a27). *El Arco y la Lira. Tensiones y Debates* 1 (Buenos Aires), pp. 59-67.
- Berti, E. (1997). Il tempo in Aristotele. Reprint in: *Nouvi Studi Aristotelici. II: Fisica, antropologia e metafísica* (pp. 81-93). Brescia: Morcelliana, 2005.
- Coope, U. (2005). *Time for Aristotle: Physics IV.10-14*. Oxford: Oxford University Press. <http://dx.doi.org/10.1093/0199247900.001.0001>
- Derrida, J. (1968). *Ousia et Gramme*. Note sur une note de *Sein und Zeit*. In: *Marges de la philosophie* (pp. 31-78). Paris, 1972.
- Goldschmidt, V. (1982). *Temps physique et temps tragique chez Aristote*. Paris: Vrin.

- Mié, F. (2003). La prioridad de la substancia en la primera metafísica de Aristóteles. *Critica* vol. 35, num. 103, pp. 83-120.
- Ross, W. D. (1959). *Aristotle: A Complete Exposition of his Works & Thought*, New York.
- Vigo, A. (2002). Indiferentismo ontológico y fenomenología en la *Física* de Aristóteles. Reprint in: *Estudios Aristotélicos* (pp. 237-276), Navarra: EUNSA, 2006.
- Vigo, A. (1989). Prioridad y prioridad ontológica según Aristóteles. Reprint in: *Estudios Aristotélicos* (pp. 23-54). Navarra: EUNSA, 2006.

