

dr hab. Artur Pacewicz  
Zakład Historii Filozofii  
Starożytnej i Średniowiecznej  
Instytut Filozofii  
Uniwersytet Wrocławski

Review of the doctoral thesis „Time, Number, Order and Flow of Becoming: Aristotle, Pseudo-Archytas and Iamblichus in Conversation” by Sergey Trostyanskiy

As the title indicates, the dissertation under review is devoted to several interrelated specific issues and to three ancient thinkers who addressed these issues in their philosophical works. Although the first part of the title suggests the equivalence of the issues listed therein, after reading the dissertation it becomes clear that the issue of time, however, is the primary focus, as three (II-IV) of the four chapters of the dissertation deal precisely with various aspects of time. It should also be noted that the three philosophers whose texts are analysed lived in quite distinct periods of antiquity (Aristotle – the Classical era, Pseudo-Archytas – probably the Hellenistic era, Iamblichus – the era of Roman rule), which requires a great deal of ingenuity to link their philosophical theories together.

The structure of the dissertation is appropriate and is adequately presented and justified in the introduction (pp. 27-28). The assumptions on which the Author bases his argument (pp. 24-27) and the selection of the sources (pp. 32-33) are also clearly presented. In this introduction, the Author first briefly introduces the thesis as a whole and the basic idea that justifies the combination of the three philosophers mentioned in the title: „The three philosophical accounts of time presented in this dissertation thus relate to each other as thesis, antithesis and synthesis” (p. 11), and this synthesis is represented by Jamblich’s system (zob. s. 111; s. 22: “great synthesis”; s. 24: “synthetic unification”). This declaration sounds (at least to me)

surprising, as it resembles vividly the interpretative model associated with Hegel's philosophy. If one wonders what inspired the use of such an interpretative key, the Author of the dissertation reveals this later (p. 110) by referring to the third edition of Ph. Merlan's work "From Platonism to Neoplatonism". Merlan there refers to a review of his work written by F.W. Kohnke ("Gnomon" 1955) and interprets one of the German scholar's interpretations in terms of thesis-antithesis (p. 33), but Kohnke does not use these terms in the review. Neither in Kohnke nor in Merlan do we find the thesis-antithesis-synthesis model explicitly. My suspicion of at least a quasi-Hegelian treatment of the problem is reinforced by the Author of the dissertation's reference to developments supposedly taking place in the history of philosophical thought (e.g. p. 12, 15, 16, 23, 25).

In the "Introduction", the author also formulates the goals he will pursue, albeit he does so only in a very general way:

"This dissertation aims to study the works of three notable thinkers, i.e., Aristotle, Pseudo-Archytas and Iamblichus in order to shed light on one of the most fascinating philosophical traditions of ancient—late antique thought tackling the issues of time" (p. 11; see also p. 19, 25).

"The central thesis of this dissertation concerns the imposition of a single historical tradition in respect to ancient and late antique theories of time, starting with Aristotle who sets out the area of studies, continuing in the philosophy of Pseudo-Archytas who reverses Aristotle's theoretical constructs and launches a major targeted critique on Aristotle's theory and finding its synthetic resolution in Iamblichus" (p. 16, 24).

In the "Introduction", the Author also presents the state of research, but unfortunately, refers primarily to the English-language literature. I am well aware that, with the current scholarly 'production', it is easy to demonstrate to almost anyone that they have not taken this or that study into account, but, as the Author himself points out, for the most part the sphere of research he has undertaken (Ps.-



Archytas and Iamblichus) is not developed in the form of a monograph. Perhaps, therefore, in the case of Aristotle, it would also be worthwhile to consult Italian studies (e.g. E. Cavagnaro, *Aristotele e il tempo: Analisi di Physica IV 10-14*, Bologna 2002), niemieckie (e.g. U. Marquardt, *Die Einheit der Zeit bei Aristoteles*, Würzburg 1993) czy francuskie (e.g. C. Collobert (ed.), *Aristote: Traité du temps*, Paris 1995).

The next part of the "Introduction" is devoted to a general outline of the problems addressed in the dissertation. Here I would like to critically point out two closely related things. First, I would like to point out the generalisations made in the text, and secondly, these generalisations are not supported by adequate literature references. On p. 19 the statement falls: "We know that the Pythagoreans were Aristotle's main target." I would ask: do we know for sure? As far as I am aware, there is no monograph devoted to this issue that examines it in depth. From the catalogue preserved in Diogenes Laertios (V 25), we know that Stagirite wrote two works relating to the philosophy of Archytas and two related to the philosophy of the Pythagoreans, but unfortunately these have not been preserved to our time and we only have a dozen or so testimonies and fragments (to this must be added almost 100 references in the *Corpus Aristotelicum*). It would therefore be worthwhile to substantiate the general thesis put forward by the Author of the dissertation by referring to relevant specific studies. This lack of references does not only apply to the contemporary literature, as, for example, on p. 22 the statement appears: „[...] we also have various late antique authorities..." – again without pointing to specific authors and passages in their works..

The very formulation of the topic determines to some extent the method adopted in the dissertation, namely comparative method, or comparative analysis (p. 31), but such a definition of method is, of course, quite broad and implies a number of activities indicated by such verbs as „display", „review" or „delineate". An interesting element of the method is: „[to] test each philosopher's solution on cogency by showing whether he is immune from self-contradiction, not being subject

to some further critical doubts”, which aims just “[to] restore coherence” (s. 31). But is this coherence the same as the interpretative line marked earlier – thesis, antithesis, synthesis, or rather an indication that the three concepts constitute some kind of unified whole (certainly coherence in the logical sense can be ruled out, if only because of the metaphorical nature of the language evident especially in Iamblichus’ philosophy).

The first chapter, although, according to the title, is supposed to deal with four issues, is ultimately entirely devoted to the question of time. In the ‘Introduction’, I would again point out the lack of any relevant references – first, to Aristotle’s ‘Physics’ and then to the Neopitagoreans (p. 44). First, the significance of the elements mentioned in the chapter title in Aristotle’s philosophy is analysed. It has been carried out meticulously, based on the source texts with an awareness of both the historical and philosophical context (the Eleates, the Pythagoreans, and Plato’s Academy). However, a few points are worth noting. Firstly, it would seem worthwhile to structure the argument by clearly distinguishing the epistemological level of consideration from the object level. In several occasions in the work there is, as it were, a ‘leap’ between both levels. For example, when the questions of limits and indivisible elements are discussed, a metaphysical conclusion is presented, then a quote from Aristotle is given, the metaphysical argument continues, but suddenly an epistemological declaration is made (“However, the infinite is ineffable to us.” – p. 48), only to return to the metaphysical thread a few paragraphs later. I am aware that this is difficult, if only for the reason that the status of some elements of Stagirite’s metaphysics is not clear, of which the author of the dissertation is to some extent aware when he writes, e.g., „The limits, however, are not mind-dependent entities or mental constructs. They have a degree of reality, in particular—physical reality (as distinguished from mathematical reality)” (s. 53). However, it would seem worthwhile to at least make explicit the transition between the two orders of argument. This, in turn, leads to another issue, namely the vague hypotheses and



explanations adopted in the dissertation, which are introduced with the prefix 'quasi-' (or 'semi'). Thus, the section on boundaries and continuity refers to some 'quasi-touching', which entails the introduction of another vague concept in the form of 'some sort of unification' (p. 57). Again, the problematic nature of the framing is due, it seems to me, to the need to include a (meta)physical aspect in the analysis of time, because from an epistemological perspective the unity of time is a definitional unity (p. 60). Further considerations introduce further similar interpretive elements: „the indivisible“ = „a quasi-casual principle“, „the now“ = „quasi-principle of time“ (p. 71)<sup>1</sup>, „dyad“ = „semi-principle“ (p. 92, 99).

In Subsection I.1.d, the argument proceeds convincingly, but the conclusion leaves one somewhat unsatisfied. The author writes: „It is more complicated with the points and the nows since they do not add anything to the line or time. They have a more distant relation to their proper subject being even more heterogeneous“ (p. 66). As can be seen, the Author points to a problem, but unfortunately does not develop it either here or in the rest of the dissertation.

Subsection I.1.d ends also somewhat surprisingly, as it suddenly points out the link between time and flow in a single paragraph (p. 70). This, of course, has a historical justification (Heraclitus), but, on the one hand, devoting only one short paragraph to this gives a sense of superficiality, and, on the other hand, it seems that both the verb 'rhein' and the derived noun 'rhusis' are not technical terms in the language of Stagirite. Aristotle is aware of their use by other philosophers, but treats them as synonyms for 'kinēsis' or 'alloiōsis'. I understand that the inclusion of this terms in the analyses may be important because of their connection to Neopitagorean and Neoplatonic philosophy, but it may also seem somewhat artificial.

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<sup>1</sup> This is probably also how the proposal should be understood: „I would like to suggest that it is precisely the now that is the principle of time. It is a principle as cause. It is responsible for the generation of time. It brings it into being by introducing a potentially-countable aspect to motion. However, **this principle does not function in ways similar to natural causes** which indeed touch and act upon their effects thus moving them and imputing a new form into them“ (s. 168–169; podkreślenie A.P.). Here, this 'quasi' is *implcite* contained, as this other function is not explained.

Chapter I.2 deals with the concepts of limits and number in Neo-Pythagorean philosophy and it considers not only Ps.-Archytas' philosophy, who is mentioned in the title of the thesis, but also those of Nicomachus of Gerasa and Theon of Smyrna. According to the interpretative model, such a conception is the antithesis to Aristotle's philosophy, and this manifests itself primarily, as it seems, in the fact that the Neopythagorean approach is not related to the realm of physics (p. 78, 88). This section essentially points out for the first time that there is a concept of a plurality of times (p. 77 n.), which is not explained, and is only dealt with more extensively in Section III.3 and Iamblichus' philosophy. I would, however, consider removing Section I.2.b, which presents the question of the place of boundaries in the structure of the sciences, from the course of the argument. To my mind, this extremely interesting issue is taken up briefly and would have required a broader introduction to the structure of the sciences within Neo-Pythagorean philosophy and, in addition, a comparison and possibly contrast with the findings in the Academy and Peripatetics. So, it seems to be a fundamentally separate problem, deserving of a separate study, which perhaps the author of the dissertation will undertake. In terms of precision from a historical-philosophical point of view, I would point out: (1) Plato's metaphor of the segment points to a four-level model (ideas – mathematical entities – sense things – reflections of sense things) rather than a three-level model (p. 79); (2) harmony for Philolaus (p. 89) arises from opposing elements, but these are not 'infinite' and 'finite', but rather 'unlimited' and 'limiting' (*ta apeira, ta perainonta* – DK 44 B 6). One of the themes discussed in Chapter I.2 is the question of the meaning and role of *chuma* ("flow") in Neopythagorean philosophy (p. 93 ff.). The author of the dissertation points to various meanings of the term, without, however, providing any sources to verify his findings (these sources are also missing when referring to 'some Neopythagoreans' (p. 97, 100), or the meaning of the term *dunamis* in various Neopythagorean treatises – p. 97). Moreover, one can again wonder whether this is essentially a technical term in the Neopythagorean philosophy, or simply a metaphor (which is also indicated on p. 96). One can, of course, consider what *chuma* is a



metaphor for, for example, movement in general or some kind of change (Gersh, points in his monograph on the Neoplatonists (indicated in footnote 142) to metaphors related to the process of emanation, among which he includes the terms *chein* and *chusis*). The argument of the Author of the dissertation shows the problems of understanding this metaphorical point, since on the one hand he analyses the Neopitagorean statements in terms of movement, but on the other hand, in order to clarify the meaning, he also reaches for a metaphor (e.g. "a kind of blueprint" – p. 98), and to understand the nature of the point, he indicates and rejects at the same time the metaphor of a 'root' or a 'seed'. Furthermore, in this section (I.2.f), there is a sudden reference to Iamblichus, and then the argument returns to the Ps.-Archytas text without pointing to specific paragraphs (p. 100). This is a weaker part of the dissertation that should be reconsidered in its structure and content.

The third subsection deals with Iamblichus' conception of neoplatonism and begins with the question of the place of mathematics in the domain of science, that is, with the issue of the meta-scientific (this perspective returns in section I.3.d.). An important factor in understanding the role of mathematics in Neoplatonism (although one could say Platonism in general) is the role played by the soul, which is an intermediate element between the ontologically lower (material world) and the higher (immaterial world). As the author of the thesis rightly points out, the soul „synthesizes in itself the intellectual (thus, being identical with it), the mathematical and the physical" (s. 112), but this general statement should be supplemented by an indication that this only happens when it is incarnated. Somewhat unclear is also the statement: „When the soul is analyzed according to its mathematical mode, it is virtually identical with the mathematical in the sense of running together with them" (s. 112). I do not understand how *virtual identity* can be understood as a *run together*. In turn, it can be considered an overgeneralisation to say: „The soul is everywhere" (s. 112). In section II.3.d, the author indicates (p. 121, note 197) that he uses the latest edition of Iamblichus' work, but it is not clear whether the quoted

translation was made from the original Greek or perhaps from the French translation. This puzzled me insofar as the Greek phrase *kata [...] sōreian* is rendered in a rather peculiar way in the translation as “according to [...] overcrowding”. The Neoplatonist's argument clearly points to the opposing elements and explains their structure: (1) *to diēirēmenon = kata parathesin te kai sōreian*; (2) *to sunechēs = kata henōsin te kai allēlouchian*. This explanation pairs opposites in both cases, but seems to me to be done chiasmatically: (a) *kata sōreian – kata henōsin*, (b) *kata parathesin – kata allēlouchian*. Furthermore, perhaps ‘*te kai*’ should also be understood in as a kind of clarifying clarification of the preceding element, i.e. then we have: (1’) the discrete = the elements ( $a_1, a_2, \dots, a_x$ ) of a set (X) are simply placed next to each other, i.e. X is mere accumulation of elements and they are not connected by any significant relation (e.g. a portion of sand); (2’) the continuous = the elements ( $a_1, a_2, \dots, a_x$ ) of a set (X) are the one, i.e. the elements of X are related to each other by an essential relation, and the “essential relation” means that the elements without it cannot constitute X (e.g. H<sub>2</sub>O). Thus, *sōreia* is not “overcrowding”, but a mere summation (so LSJ).

The second chapter of the dissertation is devoted to the issues of the emergence of time and *moving instant* and, in parallel, its three parts are devoted to the three philosophers mentioned in the title of the dissertation. The considerations again begin with the philosophy of Aristotle, and are primarily devoted to the paradoxes formulated in the tenth chapter of the Stagirite's “Physics”. It should be noted that the analyses are conducted fairly. They are supported and supplemented by relevant passages and references to other works (mainly the “Metaphysics”). I would only consider a wider use of Plato's distinction between *kath' auto* and *pros ti*, which might have clarified the argument. This is the case, for example, in the consideration of the ‘now’, where the Author indicates that it can be understood as a ‘unifier’ and at the same time as a ‘divider’. It is evident that the first understanding results from being understood as *kath' auto* and the second as *pros ti*. It is also worth



noting that the author recognises in passing (p. 153, note 11) the usefulness of this distinction, recalling the distinction made by Inwood between two types of 'now'.

As for the section on Ps.-Archytas, the argument is also carried out correctly, although the Author states in section II.2.e: „We know that he distinguishes between physical and psychic time” (s. 182). Unfortunately, this 'psychic time' is mentioned earlier only in the dissertation summary and only in the context of Iamblichus' philosophy (p. 41), and the quotation before this statement does not refer to the phenomenon of 'psychic time'. This statement should therefore have been supplemented by an argument or reference to the literature. In the conclusion of this section, the Author of the thesis points out that the idea in the form of the distinction between multiple times and 'nows' according to scholars such as Sorabji and Majumdar Ps.-Archytas resolves the paradoxes formulated by Aristotle, but he himself puts forward the thesis that this is not the case, since Ps.-Archytas “mixes the two kinds of nows so as to arrive at something that needs some further elaboration” (p. 183), i.e. he advocates to some extent the interpretation of Damascius.

The third part of chapter two deals with Iamblichus' philosophy, in which the Author of the dissertation grapples at the outset with the metaphorical nature of the Neoplatonic language – with the notion of *anelixis* or the phrase „the intellect moves fast” (pp. 185–187). Part II.3.c draws attention to the indication of an 'extraordinary innovation' in the form of Iamblichus' statement that 'the now' can be attributed to 'position' (pp. 193-194). The Author of the dissertation attributes this innovation with the condition 'even if', but such conditionality is not visible in the source text. It is therefore worth devoting more space to this issue and pointing out the implications of this position. Regarding the general thesis of the dissertation and the perceiving of Iamblichus' conception as synthesis of the previous positions, this is not, in my opinion, sufficiently clearly demonstrated in the conclusion of this chapter. On the one hand, the Neoplatonist makes use of and connects threads from both preceding conceptions, but not all of them; on the other hand, however, the Author of the thesis

states that the Neoplatonist's conception implicitly contains a critique of these solutions, and since this is the case, the logical solution would be to reject them rather than to synthesise them.

In the next two chapters, which are again structurally divided into sections discussing successive philosophers, the sections devoted to the analysis of Aristotle's conception do not raise any major objections for me. The author of the dissertation analyses the concept of the Stagirite reliably, and when he proposes certain solutions to the problems inherent in the philosophy of time of this peripatetic (e.g. the question of the existence and non-existence of time), he is careful to indicate either the hypotheticality of these solutions or their probable impossibility of a solution. In the case of the consideration of Ps.-Archytas in chapter III.2, I would like to draw attention to one apparently important point. Already in the outline of the content of the dissertation (p. 41), the author writes: „Then I review Pseudo-Archytas' solution via the imposition of a primary receptacle of this number. Hence, I argue, 'a kind of number of movement' entails the presence of some particular movement and it is that which is associated with Iamblichus' generative time [...], one that contains the pre-ordained order of motions." The phrase "a kind of number of movement" does not appear to be a grammatically fortunate translation of the definition of time, although such a translation can be found in the literature<sup>2</sup>. But in the sentence containing this phrase, which already contains some indefiniteness ("a kind..."), the explanation is also given in an indefinite form ("some..."), which makes the sentence unclear. The phrase "a kind of number of movement" and the entire definition appears also in the part of III.2.d (s. 239), in part with the Greek original: *kinasios tis arithmos ē katholō diastama tas tō pantos phusios* [In. *Phys.* 9.786.2-3]. J.O. Urmson translates the definition thus: „a number of a certain process, or a universal dimension of the nature of the Whole."<sup>3</sup> It is worth noting, however, that there is a

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<sup>2</sup> P. Manchester, *Teleology Revisited: A Neoplatonic Perspective in Environmental Biology*, in: *Neoplatonism and Contemporary Thought*, R.B. Harris (ed.), Pt. I, Albany 2002, p. 80.

<sup>3</sup> Simplicius, *Corollaries on Place and Time*, (transl.) J.O. Urmson, London 1992, p. 105.



variant transmission here, because in the version adopted by Thesleff, the first part of the definition looks like this: *kinasios tinos arithmos*, and this version is also quoted by Simplicius in the "Commentary on Aristotle's *Categories*" (350.12). R. Gaskin translates this version as follows: „the number of a certain movement or, more generally, the extension [...] of the nature of the universe too.”<sup>4</sup> It would be worthwhile to analyse this difference in message and consider whether it affects the understanding of the concept of time in Ps.-Archytas' philosophy. In concluding the section on Ps.-Archytas, I would again point out the problematic nature of Aristotle's and Ps.-Archytas account of time in the thesis-antithesis relation. The author of the dissertation himself points out that Ps.-Archytas „endeavours to synthesize Aristotle's number of motion with the Stoic... (p. 244). Then the Author proposes the weaker thesis (“this theory [...] offers an alternative solution” – p. 245) to turn it into the stronger one (“It is antithetical...” – p. 245), and he remarks shortly that the method in Ps.-Archytas' theory is reversive (p. 245). But according to Stagira, time exists, and according to Ps.-Archytas, it does not exist only relatively, so these two theories seem not to be fully antithetical.

The last and shortest chapter of the dissertation deals with the ubiquity of time and its individuation. And again, the analyses of Aristotle's philosophy are made well, but this part of chapter lacks the appropriate summary and conclusions. Analyses of Plotinus' philosophy also appear in the section on Ps.-Archytas (IV.2c-d), although I have found no justification for the introduction of this thread. Its inclusion introduces additional difficulties in following the argument, since Plotinus' account of time partly overlaps and partly diverges from that of Ps.-Archytas. On the contrary, in the section reflecting on Iamblichus' philosophy, there is a claim that this Neoplatonist did not produce a synthesis of the themes present in the philosophical tradition that preceded him (p. 323). So, at least as far as the issue of the

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<sup>4</sup> Simplicius, *On Aristotle Categories 9-15*, (transl.) R. Gaskin. London 2013, p. 83.

individuation of time is concerned, it cannot be placed within the broad interpretative perspective proposed by the Author of the dissertation.

The dissertation tackles a *very difficult* philosophical problem, but seems nevertheless to have been written as clearly as the subject matter itself allowed. There are some minor linguistic issues, but these are easy to spot and correct, and so generally do not adversely affect the flow of the argument (np. „Indeed, in is interesting... [s. 30]; „what s numbered in motion” [s. 40]; „The same apples to the unit... [s. 71]; “Iamblichus tells is...” [s. 115]; „[...] Aristotle provides posterity will all the necessary...” [s. 143]; “A more resent monograph...” [s. 183]; „It is implicit in their theory but not clearly stated” [s. 101 – pleonasm]). There are also formal errors (e.g. a lack of quotation marks [s. 18], no full stop after the initial of the name [s. 32, 33]; other: p. 76, 121). In the analyses, the Author refers to the interpretation of Damascius (e.g. p. 123, 297-298), but he has not included this Neoplatonic author in the bibliography.

To conclude, the Author of the dissertation demonstrates adequate skills in the analysis of original texts, enters into polemics with some of the solutions proposed by contemporary researchers, proposes his own solutions and shows adequate research acuity. The comments listed above are polemical in nature and only point to certain elements that are worthy of better consideration in order to make the deliberations clearer and more convincing. Thus, I believe that S. Trostyanskiy's dissertation “Time, Number, Order and Flow of Becoming: Aristotle, Pseudo-Archytas and Iamblichus in Conversation” meets all the requirements for a doctoral dissertation and I submit that S. Trostyanskiy be admitted to the further stages of the doctoral procedure.

