CALLIMACHUS' PUZZLE ABOUT DIODORUS

Vladimír MARKO

The author tends to emphasize that there are almost the three reasons to analyse Callimachus' epigram about Diodorus (Pfeiffer fr.393, 1-4): First of all, the date of this epigram shows us that it represents the earliest information about Diodorus doctrine. Second, another support of its authenticity could be found in fact that this epigram expressing part of the almosphere following, and also remaining after, discussing the Diodorian topics. Third, its philosophical relevance, usually minimised in classical literature, could be found in those facts that it could show the way out in many today dilemmas about his philosophical claims and support some of our contemporary assumptions about its logical conception, as well as that of space, time, and meaning of statements. The author defends a position that it is necessary to develop well-grounded and methodologically relevant base covering the historical reconstruction and the interpretation of ancient logical theories.

1. Uncomfortability in a matter of method.

Very poor sources of evidence exist about Diodorus. Among them, we could recognize and such whose authenticity or value is questionable or almost problematic. But that state of affairs represents just a part of the problem in our attempt to understand better Diodorus' philosophy, his particular claims or scope of his influence.

Even if we wish to leave aside this general impression, we have to face the other side of problem concerning Diodorus. Namely, we cannot escape the fact that, up to date, we do not have at disposal a decisive method which could offer us, even in a scope of limited and surveyed number of data, some unique picture of his philosophy, or of its particular aspects – neither about his logical theory, theory of meaning, 'sophistical' puzzles, etc. nor about wider *scope of influence*, which covers his activities and has formed those data about his life and doctrine that are at our today's disposal.

This means that our problem is not just in such an item as the poor sources of evidence. Partly, it could be a plea for deficiency of our tryings. The necessary rest of our problems consist in lacking of conceived and satisfactory developed means or methodological tools, by whose help we could be able to ground our reconstructions of those theories divided from us by a big gap in time.

Our different approaches, resulting in different interpretations of such theories, among the other related problems investigators are faced with, support not just the impression about insufficiency in the development of some theory of historical reconstruction, but also lacking of such a theoretical ground even in its primitive or crude shapes.

In the case of human history, the number of auxiliary disciplines mostly plays a supplemental role and also serves as a complement of powers in the activities of historical reconstruction. But in historical reconstructions of scientific theories, we come across to a quite different situation, especially so if we wish to examine and compare advantages and results of such undertakings in scope of history of logic.

However, a question of the method in reconstruction of "historical theory," or theories whose age of forming and date of actuality is connected with a certain past interval of time, compels us to develop a clearer physiognomy of theoretical models that could serve as a ground for an *evaluation* of different historical interpretations of these theories. Only existence of such model, or models, could encourage us to choose some of the certain value, among plurality of rival interpretations. Even if we are not able to discern them as completely authentic interpretations, this model certainly could be of help in eliminating some illegitimate and free interpretations.

There are different actual approaches to a historical reconstruction of logical theories. During the 20th century, ancient and past logical problems, doctrines and theories from different reasons again begin to play a role in interest of logicians and historians of logic. Examination of such theories can serve several obvious advances. In short words, they support, in a very illustrative way, solutions that could be obtained by the means of contemporary theories. From the other side, different approaches to the traditional problems in logic, problems borrowed from the past, very often represent challenges for current theories and sometimes show new direction for their development.

2. Diodorus Cronus was the Megarian philosopher.1

He was born in Iasos, in Asia Minor. He spent most of his life in Athens. His *Master argument /M.A./*, famous in antiquity, has received a considerable attention in the past 40 years.

Epictetus informs us of the premises on which it was based and also of its conclusion:

'The Master argument appears to have been conducted from such starting points as the following. For there is an inconsistency among the following three propositions.

(1) Everything past and true is necessary.

(2) Something impossible does not follow from/after (ἀκολουθεῖ) what is possible.

(3) That which neither is nor will be true is possible.

Spotting this inconsistency, Diodorus made use of credibility of the first two to establish the view, that

(z) Nothing is possible which neither is nor will be true."2

In fact, this is not a story about M.A. Possibly, just partly. We would like to introduce one Callimachus' epigram that could have a reference to Diodorus' logical and temporal conception, and to form its adequate interpretation. It follows:³

αὐτος ὁ Κρῶνος ἔγραφεν ἐν τοίχοις "ὁ Κρόνος ἐστὶ σοφός". ἠνίδε καὶ κόρακες τεγέων ἔπι "κοῖ συνῆπται"; κρώζουσιν καὶ "κῶς αὖθι γενησόμεθα".

(Even) Momos (himself)
used to write on the walls: "Cronos is wise."
Look, even the ravens on the rooftops are craving: "What follows (from what)?"
and "How shall we come to be hereafter?"

3. The hypothesis.

My opinion is that Callimachus' epigram deserves our patience since Callimachus' intention was to give, through condensed form of epigram, accord as possible as a transparent way, not just his impression about Diodorus as a person, but also to express the view of his own age about one of the most influencing philosophers in his surroundings.

I suppose that there are at least three reasons to analyse this epigram: First of all, the date of this epigram shows us that it represents the earliest information about Diodorus doctrine. Other, most common information, come to us from the later ages, with temporal distance of almost five or six centuries; Second, this epigram expresses part of the atmosphere following, and also remaining after, discussing the Diodorian topics; Third, its philosophical relevance could be found in those facts that support some of our contemporary assumptions about Diodorus' conception of space, time, and meaning of statements. I share the opinion that these reasons can help us resolve, or better understand authentic meaning of M.A.

4. Has Callimachus been competent to make an epigram of such relevance?

Before we start with analysing of the epigram and with possible reconstruction of its depicting, let us briefly sketch his biographical portrait.

Callimachus came to Alexandria, at the court of Ptolemy II Philadelphos, after his native town Kyrena, in Libya, was destroyed. Ptolemy made him a cataloguer of the Royal library, *aulicus regius bibliothecarius*⁴, the most important in the Hellenistic world. Of Callimachus voluminous writings, around 800 books, only fragments survived, and many of them are discovered in the 20th century.

His famous poetical work, which best presents his antiquarian interest, was *Aitia*, The Causes, or better, The Origins. In the four books of this narrative elegy, Callimachus explains legendary origins of obscure and forgotten customs, festivals, mythological persons, myths and mythical events, etymological and historical origins of their names and names of rivers, mountains, etc.

His poetry and his epigrams, taken together, are testimonies about sense for forming and organising the subjects he dealt with. In poetry of Callimachus we can feel a high, polished style which was taken as a model by many Roman poets, notably Cattulus, who himself had freely adopted his works into Latin. It is also evident his influence to Ovid and his Metamorphoses, especially from the aspect of organisation – characteristic for short episodes basically connected by a common theme.

Callimachus was a serious investigator of Greek and Egyptian religion and mythology. Furthermore, his life is closely connected with life of Ptolemy Philadelphos, Ptolemy II and with intermediate realisation of the contents of his political ambition. Callimachus himself, as a representative of a court poetry, used to make poetical portraits of him and other members of Royal family, glorifying them as persons of divine origin.

Ptolemy II was the son of Ptolemy Soter (Savior), who, in the fall of 330, was appointed as a personal bodyguard (σωματοφύλαξ) to Alexander. Three years later, after Alexander's death, Ptolemy received Egypt. Then he had made both the kingdom and the strategy of the pharaoh his own. He was already a pharaoh to the native Egyptians. Besides, he wrote about the wars of Alexander and this work came to us according to the Arrianus redaction. He was the founder of the Museum and the Library in Alexandria. His son continued and developed this tradition.

At the time of Ptolemy II, Alexandria was the center of the Hellenistic world. Part of the jobs of Alexandrian members of the Museum, was to investigate and elaborate tradition of Greece and Egypt. But the special interest of Ptolemy II was to form such a kind of religious mixture between Greek and Egyptian mythology, in which he and his sister, and simultaneously his wife, Arsinoe, would be glorified as divine persons.

Callimachus was the member of the Museum and very near to head of the Alexandrian library. He had to be widely informed in history, art and literature of ancient and current Hellenistic world. As a cataloger of the library, he made and equipped the catalogs (Π ivakes) with the name of authors, titles and with short quotations of opening lines of every work in the library.

Alexandrians "invented," if we could say, the concept of *classics*. The aim of the librarians of Alexandria was not just to collect and catalog every extant Greek book, but also to produce critical editions of the most important issues together with textual and interpretative commentaries.

Many such editions and commentaries did in fact appear. Alexandrian editing was distinguished above all by fidelity to tradition. The text was constituted from oldest and best copies available, and conjectural emendation was rigidly confined to the commentary, which was contained in a separate volume.

Alexandrians, virtual in textual criticism, made also standardisation of Homeric texts. They made systematisation of all kinds of knowledge, already pursued enthusiastically within the school of Aristotle, and tried to develop it into science. That was Callimachus' intellectual and thematical surrounding. Let us now see, is there any connection between Callimachus and Diodorus and what is its nature?

5. Has Callimachus ever met Diodorus?

How could we sketch a possible Alexandrian portrait of Diodorus? Has Diodorus ever visited Alexandria?

The story of Diodorus' death comes to us in one anecdote in the style typical for literary taste of Diogenes.⁵ According to the story, probably at Alexandria, both he and Stilpo happened to be guests at a banquet given by Ptolemy Soter. Stilpo presented Diodorus with a set of logical puzzles, which he could not immediately solve. Ptolemy made things worse by scolding Diodorus and calling him by his nickname Kronos. Diodorus left the court, wrote out a solution to the problem and then died in the misery.

Some commentators used to interpret this incident as non-Alexandrian, since Stilpo never visited Alexandria. The meeting of these three persons connected with Ptolemy's liberation of Megara, in 307, following the fact that Diodorus was the Megarian philosopher. He was a follower of Euclides of Megara, but that does not mean that he had meet Ptolemy during his invasion. We know that as a young man he had come to Athens where certainly spent most of his life. From the other side, Callimachus, as a boy, first time came to Alexandria from his native Kyrena during the period 290-85, almost 20 years after Ptolemy's liberation of Megara and, as Herter supposes, he never left North Africa.⁶ Is not that anecdote almost authentic?

It seems that there is an exit from this blind street of dating. We could find it in the fact that Ptolemy Soter by his fleet liberated Athens in 287. This was mere possible date of Diodorus death than that connected with the liberating of Megara in 307. It also makes possible the fact that Diodorus visited Herophilus,7 who lived in Alexandria, since we know that he was born around 320. It is easier to believe that this well-known medician was more than 14 years old when he cured Diodorus' injury. Weather or not the claims of Wilamowitz ([36], s.124), Natorp ([19], s.705) and Döring ([6], s.125) are true, that is possible that Diodorus was still alive when the epigram had been written, it means after 290-85, this dating makes the anecdote, and possible relations between Ptolemy, Stilpo, Herophilus, Callimachus and Diodorus, more probable.

Ptolemy I Soter 367/6 – 283
Herophilus (born) 320
Ptolemy I (Megara, death of Diodorus?) 307
Stilpo (never was in Alexandria?) late 4st and early 3st cent.
Callimachus (first time in Alexandria) 290-85
Ptolemy I (death of Diodorus? – Athens or Alexandria) 287-83
Ptolemy II (at the throne) 285
Callimachus (death) 245

Beside the fact whether Diodorus has ever visited Alexandria or not, whether Diodorus has ever been in contact with Callimachus himself or not, we have enough certain ground to suppose very close tied connection between them according to the fact that Diodorus was in contact with Ptolemy I and that it is chronologically possible that he visited Egypt and met Herophilus. That makes our story more authentic and also explains the way of his possible impact in Alexandria.

6. Who was Momos?

Let us start with depicting the symbols quoted in the first part of the epigram. Who was Momos and what was his relevance? How to understand qualification he gave to Diodorus?

In Greek mythology, Momos was a personification of sarcasm. Due to Hesiod, we know that he was a son of Night (N \acute{v} ξ). Night generated Death and Dream, and, in the companion of Dream, a lot of Dreams. After those, it generated together – Momos, or Sarcasm, painful Nausea, and also, Hespherides, whose task was to watching plantages of apple trees beside the Ocean, and their fruits.

It is one and almost the common version of Momos' origin [18]. Hesiod, beside the connotation related with his name, said nothing about his character. According to the different other sources, we can reconstruct a mere part of it.

One older story⁹ about Momos' character runs as the following. When human kind was generated, and started to be so big in number, so numerous and heavy to the goddess of Earth, Geia, that she was not able to cover it together, she asked Zeus for help. Father of gods then decided to begin Thebanian war. Since that war did not take enough victims, Zeus intended to reduce the number of people on Earth, and to rarefy it by thunders and floods. Momos then, having a better idea, gives to Zeus an advice – to reduce the number of people by starting a war between Europe and Asia, in the following way: to marry Tetida to a mortal man, Peleus, and to take for himself a mortal wife. Zeus followed this advice, and from these two marriages Achileus and Helena were borne, the main persons of Troian war. This story, as we can see, places Momos so near to Zeus, as his wise and good adviser, and also credits him with historical dignity, as the person who caused war of Troia.

Later stories, like those we can find in *Nigrinus* and *Dialogi Deorum*, of Lucian, ¹⁰ written in the 2nd century A.D., is a little different. They represent him as imaginary being, not glorified as a person of dignity and value, but as the one with sharp tooth and light wings, who flies around and is always ready to objections and abuses. In those stories, he is no more member of Olympian family, since, after all, ¹¹ father of gods drove him out from Olympus because of his objection that Zeus had made a mistake by not putting the horns of bull in the front of the bull's eyes, in the purpose of seeing their tools during a battle.

Besides that given in the epigram, there is one more and the last place where Callimachus did mention Momos by name, in the way related with these stories. At the end of his Hymn to Apollo, the poet glorifies the god and driving Jea-

lousy out from Olympus, sending her to join Momos.¹² The line is allusion to Plato's words about her throwing out by the Olympian divine chorus.¹³ An another indicating place that refers to Momos we could find in Plato in the Sixth book of *Republic*. There, Glaukon and Socrates discuss the nature of a philosopher and features of a soul that could completely understand the Being. After Socrates lists such a perfect combination of features, Glaukon, having nothing more to add to the list of Socrates, in an instant said:

οὐδ ἄν ὁ Μῶμος το γε τοιοῦτο μεμψαιτο. 14 "Even Momos could not abuse such a person."

It is the only place where we can find the opinion of one philosopher about Momos, and reading the line, it is enough to recognise him as the person familiar in philosophical discussions and ready to an objection even in 'philosophically relevant themes'.

7. Momos wrote on the walls: Kronos is wise.

Some editors, like Pfeiffer [21]¹⁵ and Döring ([6] s. 124-5) tend to take these two opening lines of the epigram pungently satirical in tone: that Momos, the personification of faultfinder, is there presented as Diodorus' lover, a kindred spirit and to him a familiar figure.

Momos wrote his opinion about Diodorus on the walls of Alexandria. It corresponds to those comments according to which the subject of M.A. was such a popular theme that it was discussed during the dinners. The fact of it being so popular is expressed by his act. Also, we have to know that in the age of Callimachus it was usual to write on the walls or trees such comments about contemporaries, particularly, about those persons who have certain influence or have obtained common glory in public life. Aristophanes, ¹⁶ Theocritus, ¹⁷ and also Callimachus, ¹⁸ inform us about such a habit, and it seems that these actions were connected with affirmative sense of representing the features of some persons. Callimachus, himself, as a person from the Museum, that lies between two Alexandria's harbours, must have been very well informed about public life and about those persons who had wide public influence.

The reading of these lines with less satiric atmosphere would probably be more conceivable. According to that interpretation, Callimachus tends to emphasise that *even* Momos, known as a faultfinder, has no objection to the argumentation and concludes that Diodorus is wise. This almost corresponds to the lines

found in the words of Glaukon. That gratulation, with such a title like 'wise man', belongs just to the one who is preserved of any objection.

We also have to bear in mind that Momos, by saying ' δ Kp δ vo ς è δ τὶ σοφ δ ς,' has been introduced as one of the competence in the Stoics' debate about difference between σοφ δ ς and φα δ λο ς , wise and unwise man. It was a very popular theme to Stoics and maybe Callimachus partly intended to abuse his Stoics contemporaries, their themes and dialectical and very popular method of discussing the philosophical items. Their preference for non-academic, oral presentation would explain why the philosophy and especially logic of Dialecticians, i.e. Megarians and early Stoics, came to be so much better known than that of Peripatetics.

The philosophy of stoics had to be popular in Alexandria, not just 'at the streets', but even on the court of Ptolemies. 19 The fact that almost one hundred years, philosophy of Stoics has been in some way present at the court of Ptolemies, shows a shape of their possible influence in Alexandria, and in its cultural and public life. But there was hostility between Peripatetics and Megarians, since Stoics had been followers of Megarians. The quarrel continued for many centuries and had bad effects on the development of logic.

The academical forms of exposing always lead to greater complexity and certainly restricted influence. Even most of the later Stoics, the method of such older 'dialectical' philosophers held as *careless* and *superfluous*. Epictetus, commenting The Master Argument, saying that such discussions, as Diodorus argument was, were empty talks without a purpose and, certainly, without ethical relevance. Sense of this later comments is not far from that given in the epigram of Callimachus, though it was recorded at the age of Flavius Arrianus, in the second century A.D.

But why did not Momos mention Diodorus by his real name? Why did he write *Kronos*?

8. 'Η γραμματική τεχνή.

Callimachus, as the member of the Museum, had the opportunity to know different meanings of words forming the expressions quoted in his epigram. As we can see from his masterpiece *Aitia*, one of his main preoccupations was to depict hidden or forgotten meanings of words. As a follower of tradition grounded by Zenodotus and as a grammatician himself, he was surrounded with the army of γραμματικοί, those who deal with *everything given in written form*.

We also know that Alexandrian school was one that followed tradition of the socalled Analogist.

The art of letters – ἡ γραμματική τεχνή – could be divided in two main streams: Anomalist and Analogist. Anomalist, who believes that language is the result of the symmetries which a convention can provide, points out language's lack of regularity as one fact of the inescapable irregularity of nature. It was also a representative conception of, for example, Stoics, who stand in opposition to the Analogist (as Alexandrians were), those who looked on language as it possesses an essential regularity, and who were working largely on literary criticism and text philology, completing the development of the classical Greek grammatical tradition.

Dionysius Thrax, later Alexandrian grammatician (ii B.C.), used to call grammar, "the acquaintance with, or observation of, what is uttered by poets and writers"²¹ and in that sense, the work of grammatician is to deal with pronunciation, poetic figurative language, difficult words, etc. Schenkeveld supposes that quotations of Dionysius in Sextus have been derived from a treatise on grammar by Asclepiades of Myrlea (ii/i B.C.), who differs τεχνικόν, ίστορικόν and γραμματικόν μέρος τῆς γραμματικῆς. Technical part here refers to examining the words, parts of speech, orthography and ἑλλενισμός καὶ τὰ ἀκολοῦθα while the last part covers themes like ἀναλογία and ἀνωμαλία and ἐτυμολογία.

Callimachus was "the grammatician,"²³ completely in the sense of Analogist, and, as a man present besides those who work on the redaction of traditional texts, as for example, on Homer, he also had to know that poets had given several descriptive features in the mentioning of Kronos.

a) Homer used to describe him as Κρόνος ἀγκυλομήτης, what means not only physically fast, but also refers to the person fast in reasoning, curved and ready to perfidiously meandering and make underhanding plans.
 b) In his History of Greek Culture, ²⁴ Burkhart used to say that Hellenistic

b) In his History of Greek Culture, ²⁴ Burkhart used to say that Hellenistic period is characterized by the feeling – that times of temples belong to the past. Kronos is no more, as 'in the golden age,' 'in the days of Cronos,' the poweful god mastering human destiny by the rigorous law – the king, or the ruler. His name is starts to be asociated with new meanings. These now correspond to those, bad titles in naming the members of Olymp's family. Aristophanes, used to call Kronos with the title Κρόνος ἀρχαίους, οτ μωρούς, ληρούς, ἀνασθήτους. Plato, at several places also inroducing us with such connotations attaching to its name. According to this new picture, Kronos is an old,

stupid man, Κρονόληρος ²⁸ (ληρέω and ὁλῆρος), an old twaddler, babbler and tuttler, a person whose speech is full of superficies and unimportant words. He is not just ή Κρονοθήκη, a receptacle for old follies, but also Κρονίππος, an old dotard, old fool.

- c) However it was, it is also possible that Diodorus obtained his nickname for his inability to resolve the Stilponian puzzle. Ptolemy I, Soter, named him Kronos, following the metaphorical story according Kronos lost his throne from Zeus, like Diodorus, well-known figure of his own age, lost it from Stilpo. Momos also looser, due to losing his title of Zeus' adviser and for being thrown out from Olympus is represented as a figure with some kind of competence to judge a man familiar to him, the person who is in the hand of the same stream of destiny.
- d) Beside that, it is quite possible that the physical figure of Diodorus himself, was one of the causes of his nickname, maybe one among some above quoted causes. Timon did mention Diodorus as σκολίος, curved (κορωνός), possible hunchbacked man, like the physical figure of ravens on the roofs of Alexandria (ἐς κορακοειδής, èς κορακώδης).

Possible conflict between Stoics and Alexandrians was not only in the popularity of their opinions, but also in sharing some different views about many grammatical issues. Even the older Stoics did not recognise a grammar as separate discipline, since it does not appear in the standard division of Stoic logic into dialectic and rhetoric, their wide interest in its above different aspects was known, as well as their claims and influence to its later development. Beside their favourite themes, as were $\varphi ov \hat{\eta}$, $\varphi poo \hat{\iota} v$ and $\lambda \hat{\epsilon} \xi \iota \varsigma$, they frequently were discussing the etymological questions, 35 willing to incorporate interpretation of the meanings depicted from traditional tales and names of divine persons into own philosophical system.

Cicero has been recorded that Stoics (i.e. Zeno, Cleanthes, Chrysippus, Diogenes of Babylon and probably Krates, well-known stoical grammatician with a nickname 'Ομηρὸς) undertook 'the effort to give a rational meaning to imaginary stories and to give reasons for the names by which all gods are called', since they believed that 'a great number of gods have also been derived from scientific theories about the world nature', and that 'these impious tales are merely the picturesque disguise of sophisticated scientific theory'. Also, Cicero writes that 'Zeno wrote interpretation of Theogony of Hesiod ... arguing that these were merely names given symbolically to mute and inanimate forces', and that 'Chrysippus wrote the treatise On the Nature of Gods,

where in the second book he tried to reconcile the tales of Orpheus, Mouseus, Hesiod and Homer ... In this he is followed by Diogenes of Babylon in his book Minerva'.

Stoics and Alexandrians have had the same sources, but their methods and intentions were different. Callimachus' starting point was the fidelity to tradition. Stoics' purpose in explaining tales and names was to support the construction of philosophical system. Possible that Callimachus choose the name of Kronos since, as we know from Cicero and from the anonym scholiast, interpretation of his name as $\chi \rho \acute{o} voc$ was the central subject of their discussions about the nature of time and change – the theme equally familiar to the Megarian philosophy and, as we see from content of M.A. to Diodorus himself.

The writer of *Aitia*, willing to display the Alexandrian portrait of Diodorus, certainly had sense for all of the meanings here mentioned and its contextual aspects. Weather or not Diodorus was a perfidious man, old codger, hunchbacked man, or looser (like the god Kronos himself) in the putative battle with superior Stilpo, it seems that Callimachus (as listener of Praksifanos, who was the follower of Theophrastus, and also known philologist of his age) chose Diodorus (the representative figure of Megarian school and also, in some sense, of his Stoics' successors), with an intention to make distance from them in the question of grammar and to deride their philosophy and method, which in Alexandria made them more popular then Peripatetics.

Until now, we have tried to see what could be the meaning of the first two lines of the Callimachus epigram.

9. But is there any connection between its first and second part?

I believe that there is such a tiny line, but with the lot of elements that support its existence, connecting the first and the second part of Callimachus epigram. Most of the commentators used to think that the pairing of the two couplets was conjectural, and that the precise meaning of it was debatable. Some authors, like for example Kneales ([15], pp. 113-138), think that its meaning could be reduced to the sentence of the third line, which they read in a sense that 'Even the crows⁴² on the roofs caw about the nature of conditionals', i.e. as the simple testimony of popularity of Diodorus' questions.

The first two lines, or better to say, one and a half, are extracted from Diogenes Laërtius.⁴³ The other two, come from Sextus Empiricus.⁴⁴ Sextus probably believes that the second part has to belong to the two different and almost unrelated questions. Pfeiffer, thinks that these lines, referring to the one and

same person, represent Callimachus' expression of the unique opinion about the central subject of his epigram and that they had to be conjoined for doxografical or editorial reasons – without further reasoning and without questioning the fact if it really forms the complete epigram or not. He simply believes that they, formed in such a way, could represent just a part, but part of the unique epigram.

I suppose that we could claim that these lines formed, possibly not complete, but one and coherent epigram, and that their pairing by Callimachus was not incidental. This thesis could be supported by the several simple facts. Before we continue to elaborate questions occupying the ravens on the roofs, let us just remember that Callimachus himself had a special interest for the birds and their features.

Horowski [13] exposes Callimachus' different, a very subtle systematization of the birds, where he presented and analyzed them according to their different features. We know for his wide interest in scientific zoological classifications, which he usually tends to wear in a suitable poetic form. He also has been well informed in contents of Aristotle's *Historia Animalium*, and several of his fragments using descriptions and phraseology based on passages from Aristotle's works about animals.⁴⁵

Also, in Callimachus' works, there are several examples of discussions among the birds, very similar to that in the epigram. Further testimony about the fact that birds were one of Callimachus' favorite themes can be found in Suda's quotations about Callimachus' prosaic work about the birds – Περί ὀρνέως.

Callimachus also developed his own systematization of birds according to the ability of making good or bad predictions. In Antics ravens were usually represented as the birds with high ability of prophecy, foretelling bad⁴⁷ or good⁴⁸ weather, rain, wind or other things from the divine sphere,⁴⁹ i.e. from the sphere of destiny.

Further, *Corvus corax*, like other *corvidae*, during the antics were symbols of longliving and eternity, and in Egypt they were presented as very close to pharaohs. They were also symbols of talkativeness. In antics, people used to teach them to 'talk'. For such birds, so close connected with the knowing of things from the divine sphere of destiny, certainly the question of genesis was more exciting than that of moving, as we can recognize from their second question.

In one of Callimachus' fragments, we can also find that the raven is the bird that represents his native town Kyrena, since the ravens were birds that follow Apollo, Φ o $\hat{i}\beta$ o ς , the founder of Kyrena. It was the town where Diodorus' teacher Apollonius, with the same nickname Kronus, was born, too.

Ravens are usually represented as the wise birds, and with a role of advisors, like Momos. In *Birds* of Aristophanes, Euelpides and Pisteter went to take advice from a raven. Also, Aristophanes, parodying at one place Orphic theogony, states his own version of ornithogony, in which from the egg of goddess Night, $N\dot{\nu}\xi$, the mother of Momos, beginning the Olympus of birds.

Ravens, according to the Greek mythology, were also birds that symbolized Kronos himself, and commonly represented him or carried his signs. It means that Momos and the ravens are in some kind of brotherhood.

But let us now continue with the question of ravens: 'κοῖα συνῆπται'.

10. What follows (from/after) what?

Almost all the Priorian-style reconstructions of Diodorus M.A. were built before Döring issued the complete edition of the Megarian fragments. Commentators grounded them as general and almost sole on Epictetus' and Boetius' reports about M.A. That was the case, for example, with reconstructions of Becker [2], Prior [23][25][27], Schuhl [31], Hintikka [12], Rescher [29], and Rescher's later version in the companion with Urquhart [28].

Some informations about other aspects of Diodorus' doctrine were, if not unknown, then possibly uninteresting or at all very little known, just partly from Zeller [37], Scholz [33], Mates [17], Bocheński [4], the Kneales [15], or even from Prantl [22], who have neither understanding nor sympathy for Megarian and Stoic logic, minorizing it as the simple eristic and unautonomous philosophy. Following these sources, commentators quite naturally followed opinions about that the questions of conditionals and possibility are two separate items. That opinion resting upon its antics source of interpretation of the second part of Callimachus' epigram, where Sextus informs us that he understands it as two separate questions.

He introduces the second part of Callimachus epigram with a purpose to make distinction between art of grammar and that of philosophy. For he believed that the first question represents domain of grammar. Grammatician, he continues (here it is Callimachus), talking us about Diodorus method of forming the plausible conclusion. That there was nothing unusually in that line, Sextus supported with personal opinion, that even the kids have no any doubt with its meaning (καὶ μέχρι τούτου συνήσει τὸ παιδίοις γνώριμον). The first question, according to Sextus, had the same meaning as 'What is valid condi-

tional?' He does not suggest any additional role of the word συνῆπται in the question, and he understood its meaning simple as 'following from', but in explanation he slightly changed this term with the characteristic Diodorian phrases (covered with usually temporal connotation) supported with a term ἀκολουθεῖ.

Callimachus, with ironical allusion to Diodorus origin, uniquely suited these questions with Ionian form (κ oîa and κ ô ς). If it is sole connection between lines, than we can understand it as a separate, what means that the first ravens question is just expressing the technical standpoint about a notion of 'implying', but without temporal weight, with no connection to Diodorus relationship between logical and causal (i.e. temporal) order.

However, there is another possibility of interpreting the Diodorus conception of implication. Introducing of this mythical content as starting step that strongly suggests the last two lines of epigram, seems that is not so accidental. Zeno, Diodorus disciple, together with Chrysippus and other Stoics, shows considerable interest for symbolical interpretations of mythical stories. They were trying to find certain aspects of physical appearances and used to interpreted them across their philosophical conceptions. Cicero, very well informed source on the matter, informing us about Kronos, and how the Stoics used to bear him. The Stoics saw him as the god that is included in realizing of changing and extension of space and time. The story serves to Cicero as explanation why Greeks called the god by the name Cronos, "since it is the same as chronos, or time." ⁵³

The first part of the epigram, as could be seen from above elucidation of Callimachus metaphorical passages, strongly suggests temporal understanding of its further lines, noted in Sextus. As an outcome of this sense, we are in position to understand the third line as temporally suited. It means, that the meaning of Diodorus implication is and, opposite to comment quoted in Sextus, could be understood as a *preparatory part*, or introductory step to line which follows it. For if the first part of epigram sketches just the Alexandrian atmosphere and opinions about Diodorus as a person, then the metaphors coloured with temporally connotations would no have one relative point with the first line of the second part of epigram, quoted by Sextus.

The edition of Döring [7] (and recently, that of Gianantonni [8], Long & Sedley [16] and Hülser [14]) gives us more reasons to believe that Diodorean valid conditionals have been formulated across modal and temporal conception of truth, i.e. that the valid conditional is that in which 'it neither was nor is possible for antecedent to be true and the consequent false'. 54 Diodorus definition of valid conditional was constructed against problems that rises definition of

Philo. Philo's definition, that corresponds to the modern 'material implication,' is here slightly modified with a purpose as *to render implication universal*. But in what sense Diodorus' definition can render implication more universal than that of Philo?

It seems that Diodorus has its own criteria on what we can render as 'wellformed' statement. It is such 'form of the word' which may be true at one time but not at the other. He evidently had in mind some incapabilities of Philo's requirements for sound conditional. According to Philo's definition, such form of the words, that was usual as example in discussions on conditionals as 'if it is a day, I am conversing', might conceivably satisfy Philo's requirements in one time but not at the other. Therefore, when Diodorus said that the sound conditional 'neither could nor can begin with the truth and end with the falsehood.' he certainly had in mind such kind of universality according to which sound conditional has to satisfy some requirements that would be valuable at any time, past, present or future. He escapes to define conditional by reference exclusively to necessity, but puts additional requirement to it. Possible that he saw that truth of conditional referring to different times is concerned with relation between truth of statements and its modality, and that they must have same source of justification. He is willing to emphasize that those given in Philo's definition must be extended in respect to be valid in different times.

One of the ways to interpret this Diodorus intention is to see him in the 'dialectical' context of his professional public practise. Then, what he had in mind is nothing but dialectical trick in the discussion-battles. According to this interpretation, his formulation of valid conditional quite possible he chooses because he wanted to make it universal in the sense to be acceptable even from standpoints about possibility that were different from his own. Probably that it was one of ways to escape such paradoxes he himself used to made in arguments grounded on the reference shift from statement to state of affairs they are describing. If the possibility invoked in discussion is logical, the formula yields strict implication, if merely empirical, it offers a correspondingly empirical base of implication.

It could be just one aspect of his intention. From his 'grammatical' fragments, 55 we can find out that his strategy was not simply sophistical. Here he gives us certain elaboration of his possible standpoint about the way of forming and interpreting conditional 'statement.' This looks as some kind of the 'speech act' theory. According to him, 'nullum verbum est ambiguum: '56 "No one says or thinks anything ambiguous... when you have understood something other

than what I had in mind, I should be held to have spoken obscurely, rather than ambiguously." He saw that obscurity is an outcome of unpreciselly defined references covered by statement, and of its untransparent meaning. The form of words as 'If it is a day, I am conversing' is obscure in above sense, and to be meaningful it has to be additionally specified. To be complete and equipped by necessity predicate, such statement either must be dated, or it has to be tied to the moment of its uttering. To pass over the valuation procedure, we have to dismiss source of obscurity in such kind of conditional statements, or we must to find out what underlies in speakers intention.

Another reason for believing that Callimachus' third line of the epigram is purported with allusion intended to sketch not simple logical aspect of the matter, but also physical and temporal order, we could check in Cicero's remark on disagreement between Diodorus and Chrysippus on the question about the nature of valid conditional. Cicero's said:

"For if this is a true conditional 'If someone was born at the rising of the Syrius, he will not die at the sea.' If Fabius was born at the rising of the Syrius, Fabius will not die at sea... And you (Chrysippus) say that it had not been necessary that Cypselus should rule in Corinth, even though the oracle of Apollo had foretold it thousand years earlier... If antecedent is necessary, ... the consequent also comes out necessary." ⁵⁷

Even Chrysippus did not accept this argument (that was companion to M.A., or possibly the part of ὁ κυριεύων-argument), sa an illustration of universally valid rule, according above reasons, I believe that there is certain and obvious connection between Diodorus doctrine of conditionals and that of truth given by temporal modality, and that there is a base for believing that the third line is given not just with the logical relevance, but also that it serves possibility for reading it as allusion with 'temporal weight.' Besides, it is also of interest to note opinion of Sedley, who says that theory about physical causation and theory about logical consequence no one Hellenistic philosopher before Carneades did recognize as distinct, and that both Epicurus and Chrysippus made explicitly their reasons for treating the two as a single doctrine. Therefore, in some sense we could support the thesis that the third line may be interpreted as complemental (or introductory) part of the fourth line. Also, that we can find its temporal aspect.

11. Shall ravens become hereafter?

According to Pfeiffer's estimation, the meaning of the last line is 'quomodo posthac erimus'. 60 Commentators are usually following Sextus' comment of Callimachus epigram in the claim that question of the third line and that given in the fourth are separate and different in their nature. Since the third is addressed to grammarians, the fourth line has special meaning for philosophers, who are, in his own elucidation, credited as those able to understand and to depict its content.

His interpretation is based on inputting to Diodorus form of an argument that repeats Eleatic argument against the possibility of motion. Subscribing to Diodorus claim that nothing is moving, Sextus understood second question of crows as fear that implies from the following reasoning. Something is moving either in the place that it occupies, or at the place that it not occupies. But neither of two is true. So nothing is moving.

The same reasoning can be applied to the living beings. For nothing is moving implies that nothing is perishing (τῷ δὲ μεδὲν κινεῖσθαι τὸ μεδὲν φθείρεσθαι ἀκολουθεῖ). The living thing does not die in the time in which it lives, nor in a time in which it does not die. So, it must be the case that it never dies, and 'if this is the case, we are always living and, according to him [Diodorus], we shall come to be hereafter (εἴ δὲ τοῦτο, ἀεὶ ζῶντες κατ' αὐτὸν καὶ αῦθις γενησόμεθα)'.

There are some evidences that Diodorus had an argument against the possibility of perishing. Sextus quotes an example that has to show the impossibility of perishing of stone.⁶¹ But given in this form, steps of Diodorus' reasoning are simply corresponding to those Eleatic.

Besides Sedley's opinion that Sextus here 'makes a ghastly mess of it, '62 it seems that the way of reasoning here is instructive to us in two senses. Firstly, Sextus translates one argument with a spatial reference, to an argument with a temporal reference, suggesting that, according to Diodorus, both of them are examples of the unique way in forming an argument and in developing its reasoning. Secondly, here is emphasized character of Diodorus' 'ontology.' The arguments are based on the atomistic conception of space and time.

There are some suggestions, as for example of White in [34], that the last line strongly suggest the locative use of $\alpha \vartheta \theta \iota$, "what have to be read as the contracted form of $\alpha \vartheta \tau \delta \theta \iota$, used as adverb of *place*." Than, according to the locative interpretation the plausible interpretation of raven's question would be "what shall we get to that vary place (the place where we shall be once we have

moved)?" However, if it is so, it would be hard to understand why Sextus in own interpretation is handling with temporal 'analogy' of the argument against motion.

White his claim based on several locative senses that are given in $[9] - \alpha \hat{v}\theta t$ (= $\alpha \hat{v}\tau \delta \theta t$) = on the spot, (just) here, (just) there – claiming that "the locative use of $\alpha \hat{v}\theta t$ by Callimachus is attested by a line from Hecale." However, the word also can be find in Callimachus in its temporal sense, and it can be attested by a line from EIΣ APTEMIN. Probably that Callimachus himself left here its meaning undecided. Sextus' reading of the line also gives us support that ambiguity of the place seems intentional.

The argument here exposed by Sextus looks quite like Eleatic, and he repeats its form at several places. However, there are other places where he informing us about some different form of Diodorus argument against motion. His quotation of this Diodorus argument is testimony that original version of argument probably was remarkably different from that Eleatic. He says:

"Another weighty 'remainder' of the nonexistence of motion is provided by Diodorus Cronus, trough which he shows that although nothing is moving (κινεῖται), it none the less is moved (or, has moved: κεκίνηται). That nothing is moving is consequence of the hypothesis of indivisibles (καὶ μὴ κινεῖσθαι μέν, τοῦτο ἀκόλουθόν ἐστι ταῖς κατ' αὐτὸν τῶν ἀμερῶν ὑποθέσες): for it behoves on indivisible body to be contained in on indivisible place, and, on account of this, it is not moving in the place where it is (for it fills up that place, but it is necessary that a moving thing have a larger place in which to move). Nor is it moving in the place where it is not, for it is not yet in that place, so as to move in it. Consequently, nothing is moving. But, according to reason, it has moved (ὅστε οὐδὲ κινεῖται. κεκίνεται δὲ κατὰ λόγον). For what was formerly observed to be in this place is now observed to be in another place.

Besides that lines following the cited place again repeats above 'Eleatic' form of argument, a few passages later Sextus is introducing few related examples 67 where he explained the real nature of Diodorus motivation for substituting the present tense 'statement' for the past one. Especially interesting is that one (ὁ Διόδωρος κομίζεται παραμυθίαν) with a ball rolling from the top of the roof to its edge.

"Let a ball be thrown onto an overhanging roof. Then in the time during the throw (οὐκοῦν ἐν μεταξὺ τῆς βολῆς χρόνω), the 'proposition' in the present (τὸ παρατατικὸν ἀξίωμα) The ball touches (ἄπτεται) the roof is false; for it is still on the way. But when it has touched the roof, the preterite (τὸ συντελεστικόν) The ball has touched (ἥψατο) the roof becomes true; therefore it is possible for the preterite to be true when the present is false, and therefore possible for a thing not to be moving (κινεῖσθαι) in the present, but to have moved (κεκινῆσθαι) in the preterite." 68

The situation correlates to that of moving, but now is extended with a question of truth of utterance describing moment of its touching the edge. Giving these two examples, Sextus serves us the base for necessary elucidation of Diodorus' kind of argumentation, as well of his standpoints about moving. i) Even nothing is moving (now?), it has moved; ii) this position is consequence of the theory of indivisible (space, or time?) particles.

The two aspects of the problem rise in the context of the last line of the epigram if we wish to treat it as one different of that of Zeno of Elea. In accordance with chosen approach to the problem we have also different results to interpretation of raven's worry. One aspect is concerning the physical feathers of Diodorus' understanding of space and time, while another is connected with Diodorus' conception regarding some necessary grammatical prescription intended for avoiding paradoxes.

An interesting interpretation of the first aspect is given in White [34], and has its support in antagonism between Diodorus' and Aristotle's conception of time. According to that, Diodorus' *minima* are indivisible spatial and temporal *intervals*, rather than points. By that way, Diodorus intended to escape paradoxes that are possible outcomes of Aristotle's' concept of 'now' (τ ò ν 0 ν). So that, as White says, "it is thus intuitive to speak of space and time as composed (σ ν γ κ ϵ ν ν ν ν) of those atoms." However, it more seems that there are some other reasons why Diodorus is escaping to use present tense formulations as 'something is moving (now), 'especially for verbs like 'to move,' 'to die,' or 'to perish'. Possibly that he saw some way of making obscurity by using such kind of phrases, so that for this case, he is ascribing it to the insufficiency of Aristotle's standpoints on matter.

Comparing these passages with his 'grammatical corpus,' in Döring (frs. 111-115), and with set of necessary 'proscriptions,' especially regarding use of some specific phrases, we can find another ground for his way of forming the argument. Such phrases that are sources of obscurities have to be forbidden or suited in another, adequate form. It seems that here he does something like that. For he, without negating the possibility motion (for something 'can be moved'), strongly suggests how a description of these situations has to be formed to escape its obscurely consequences. Since there is no moving in the case of reference to one (current) point, Diodorus chooses given phrase solution for describing his *cinematographic* motion.

12. Prospective of the M.A.

Why we do not have, after almost 40 years, the definite interpretation and the definite solution of M.A., which could be satisfactory from not just logical point of view, but also, which could be in position to satisfy historical requirements for reconstruction of the argument.

As I suppose, there are two reasons — one practical or, better to say, technical, and the other principal in nature. *Practical* reasons lies in very thin connection *between* the theories of historical reconstruction *and* the current scientific theories. A low level in development of desired methodologically well grounded theories of reconstruction, forming the circumstances of illegitimate freedom in interpreting the theories derived from the history of science. Current scientific theories neglecting, supplies or taking over the function and the role in historical reconstruction. Contemporary reading of the ancient arguments without mediation of historical reconstruction yields interesting but historically unimportant and 'free' interpretations. Without their authenticity they can serve just as illustration of current theories deprived from their weight for history of science.

The power of method in these criticized attempts in reconstruction the historical events in science are ending with sporadic tries for isolation of particular or, in historical sense, local events. They do not interpret historical fact, but historical association interprets their own thesis. It means that current scientific theories are not interested in 'kernel' or 'periphery' of the historical event. Neither they could nor have to be, since they recognize own aim in developing and throwing lights across the *actually* blind streets, i.e. in challenging the problems that have immediate relevance from prospective of contemporary science. It does not mean that such attempts could not be helpful in some sense, but just mean that they do not serve answers on the questions with historical relevance.

Second problem is that of the *principal* relevance. One its example we could find in current discussions about domain and expressive power of the tense logics. Tense logics are interesting as such, but their expressive power could not be enough reach as natural language is, to cover all possible interpretations and to do it coherently with one definite meaning.

For example, in Dissertation of Needham [20], as also in works of Massey, and partly in that of Gabbay, we can find alternative approach to tense logic that has anti-Priorian motivation. Needham tends to show, by means of examples taken from natural language, that the tense logic of Prior, Kamp and Vlach are

inadequate for a description of all tense phenomena, like we could find in our example of M.A., when it is seen from prospective of the first-order calculus.

From my opinion, these two starting points have to be definitely clear if we wish to see solution for formalization of M.A. We have to decide what kind of problem is in front of us, i.e. what problem we are really resolving and, according to it, what is the context or environment of its 'chronological strata'.

From one side, solution appears impossible without the companion of adequate theory of historical reconstruction. Some truckles of such theory we could find in Lakatos-style of historical reconstruction of mathematical theories. Beside that, we also must confess that it was not developed method but mere its instructive illustration.

And what resting, we have to decide for the principal relevance – which side to choose in today debate. These are the tools which have to ground our strategy of forming the answers.

Until we cannot reasonably decide for definite ground in these starting points, we may, or not, just personally agree with Momos, that Diodorus was wise. But at the end it has to note, that real reasons for such claim are, up to date, not completely clear since the problem of M.A. still stays in front of us.

Department of Logic and Methodology of Science Comenius University, Faculty of Philosophy Gondova 2, 818 02 Bratislava Slovakia e-mail: klmv@fphil.uniba.sk

NOTES

There are different interpretations of the *question*, what was Diodorus' native school, or what was his native philosophical source? Commentators traditionally recognize two of its aspects. One, concerns Diodorus' *doctrine*, or his philosophical thoughts and conceptions, and the other, deals with a problem of their *origins*, or question of relevant relations with his contemporaries and predecessors, which could represent base of forming picture about his native school. Different approaches serve different results in answering. From the standpoint of analyzing his logical thoughts, for example, Bocheńsky [4] shares an opinion that there are no reasons to make difference between Stoics and Megarians, for Stoics could be recognized as those who developed Megarian basic ideas (p.106). Since his approach is to give a "documented history of problems" (p.18), for their doctrine we could use the common-term, Megarian-Stoic logic. Kneales in [15] on the other side, were making some differences in the kinds of questions, types of answers and styles of two schools. Sedley

- (in [32], p.77 ff.) affirms an opinion that Diodorus simply was not a Megarian philosopher, but that he belongs to their relative branch of Dialecticians. This claim could be followed as granted in the most of literature after Sedley's article was published. But there are accepted grounded reasons for a suspection about this claim recently represented by Döring [7].
- ² Epictetus, Diss. 2.19. 1-5; LS 38A; Giannantoni, Diodorus fr. 24 (part); Döring, fr.131.
- Döring, frs. 96, 128; D.L., ii 111; S.E. M. i 309, p. 672 Bekk.; Pfeiffer: fr. 393, 1-4, Epigrammatum fragmenta, i.
- 4 Schol, Plautinum, apud. Cahen (1948) p.15.
- 5 D.L. ii 111-112 = Döring fr.99.
- 6 Apud. Sedley (1977), p. 109: Herter, RE Suppl. xiii 185-6.
- Döring, fr. 127 = S.E. PH ii 245.
- 8 Hes. Theog. 211-216.
- 9 Scholia in Homeri Iliadem, I, 5 ff.
- ¹⁰ Lukijan iz Samostate, *Izabrani spisi*, i, ed. M. Popović, Beograd, 1938, str. 82; Luc. *Dialogi Deorum*. 9.
- 11 Aesopus, 100.
- 'Χαῖρε ἄναξ΄ ὁ δὲ Μῶμος, ὁ Φθόνος, ἔνθα νέοιτο', Hymnus in Apollinem, 113.
- 13 '... ἔξω θείου χοροῦ ἵσταται', *Phdr.* 247a.
- 14 482a.
- 15 Pfeiffer interprets it as: "Deus Momus, omnium reprehensor, 'laudat', ut amator, Diodorum dum inscribit parietibus: 'Cronus', i.e. homo prae senio delirans, 'sapient est'."
- 16 Achamenses, 144.
- F Eid. xviii 47.
- 18 Pfeiffer, fr. 73.
- ¹⁹ Ambasadors of Ptolemy II visited Zeno in Athens, at 268 (Cf. Habicht [11]); Ptolemy III Euergetes, in 230's invited Cleanthes to come to Egypt (D.L. 7.185); Ptolemy IV Philopator persuaded the Stoic Sphaerus to come to Alexandria (D.L. 7.177).
- The division between Analogist and Anomalist has been traditionally accepted after Fehling made this distinction (cf. Glotta, 1956, pp. 214-270; ibid. 1957, pp. 48-100), between philosophical (almost represented in Stoics) and technical (Alexandrian) sense and approach to the question of 'grammar'. But, for example, D. Blink (in [3]) claims this division as a fiction derived from Varro (i B.C.; cf. De lingua latina, ix, 1; also, H. von Amim [1], vol. ii, s.151) and could not be applied and recognized in Syntax of Appolonius Dyscolus (ii A.D.), who lived in Egypt, and whose work could be an indicator of tradition very close to possible Callimachus' 'grammatical opinions'.
- 21 S.E. i. 57.
- ²² Cf. D.M. Schenkeveld [30], s.153.
- There are three very interesting epigrams about Callimachus as grammatician. In one epigram, Philippus (i A.D.) informs us about his opinion about grammaticians. They are children of Momos, the ill shadows of Zenodotus and soldiers of Callimachus, and Momos is their arm in hunting for "connections", and for "this" and "that" (Epigrammatum Antologia Palatina, xi, 321). Cf. also Antiphanes Macedo (i A.D.) apud ibid. xi, 322. For a little different and more friendly relation to grammaticians, see apud ibid. vii 42, where we read that Callimachus "reveal us about gods and heroes...".
- ²⁴ Burkhart, Povest grčke kulture, vol. ii, str. 232-3, Sr. Karlovci, 1987.
- 25 'ός δὴ βασιλεὺς Κρόνος ἦν,' apud. Cratinus, 165; Plato, also, at several places in Laws, gives a portrait of 'days of Cronos.'

- ²⁶ Nubes, 929; Vespae, 1480.
- 27 Crat. 395d ff.: (in Jovett translation) "... There is an irreverance, at first sight, in calling him [Zeus] son of Cronos (who is proverb for supidity), and we might rather expect Zeus to be the child of a might intellect..."; cf. also, Plato's other comments on Cronos at ibid 401b, 404a, Statesman 271c, Rep. 377c.
- ²⁸ Plutarchus, 2,13b; Com. Adesp., 1052.
- ²⁹ Com. Adesp. 1054.
- 30 Nubes, 1070; Vesp. 1480; cf. also, in Plat. Euthd. 287b and Hyp. Fr. 252.
- ³¹ D.L. iv, 32-3; Döring fr.107; LS 68E (part). Timon's testimony is for further reasons far from clear, since it, however, supports equal measure of distance which Timon felt against Zeno, who had also been Diodorus' listener and, in certain sense, follower of his school (LS 3F = Timon, fr.812; LS 31 = Timon, fr.819).
- 32 Like a raven, or raven kind, cf. Arist. HA 486b5.
- 33 Id. GA 746b7, PA 662b7.
- 34 Cf. František Gahér, Stoická sémantika, Organon F, 4 (1994):292-320.
- Among the voluminous works dealing with the problem of grammar, Diogenes informing us about two Chrysippus' books on ethimology (Περὶ τῶν ἐτυμολογικῶν πρὸς Διοκλέα ζ΄ i.e. 7. books, Ἐτυμολογικῶν πρὸς Διοκλέα δ΄ i.e. 4 books), cf. D.L. 200 and FDS 194.
- 36 Cicero, De nat. deo., iii, 62-4.
- 37 Ibid. ii, 24,63 25,64; FDS 655.
- 3N Ibid., i, 36-7.
- 39 Ibid., i, 38-41.
- ⁴⁰ De nat. deo., ii, 24,63-28,70; FDS 655; SVF ii 1067, ii 1091; cf. also Cicero, ibid., iii, 62-4.
- ⁴¹ Scholia vet. in Hesiodi Theog., 456, p.74 Di Gregorio; FDS 654.
- Beside the fact that it seems possibly irrelevant from logical standpoint, it has to note that they, among the other commentators, evidently did not make relevant the distinction between a raven (ὁ κόραξ, Corvus corax) and a crow (ἡ κορώνη, Corvus cornix and probably also the Corvus corone; in Arist. HA 593^b13, it was also the name for a seabird, possibly Puffinus kuhlii or Puffinus anglorum).
- 43 D.L. ii, 111.
- 44 S.E. Mi, 309.
- 45 Cf., for example, Kathryn Gutzwiller, in [10].
- ⁴⁶ Cf. Callimachus, Hecale, i, 2, 3; Callimachus here describes the myth how the ravens were also exhausted from Acropolis, (cf. Cahen [5], p.191, and p.196, fn.1 ad Hecale, coll.2 and fn.4 ad ibid. coll.3).
- ⁴⁷ Cf.: Arist. Fr.253; Thphr. Sign.16; Plu. 2.129.
- 48 Arat. 1003, (Gp. 1.2.6).
- 49 Cf. AP 11.417; Luc. Epigr. 43.
- ⁵⁰ Hymn. in Ap., 65-6.
- 51 Döring, frs.96, 97, 98; D.L. ii 111; Strabo, xvii 3,22; Strabo, xiv 2, 21.
- 52 Birds, 639.
- ⁵³ Cic. de Nat. Deo. ii 24,64, SVF ii 1091: "Κρόνος (enim dicitur), qui est idem χρόνος', id est spatium temporis;" Cf. also, SVF ii 1067 and LS p. 195.
- 54 Döring, frs. 141, 142.
- 55 Döring, frs. 111-115.

- 56 Gellius, Noctes Atticae, xi 12, 1-3, ed. Marchall (1969); Diodorus fr.7 Giannantoni (part); Döring fr.111; LS 37N; SVF ii 152: 'Diodorus autem cui cognomen Crono fuit, 'nulum' inquit 'verbum est ambiguum, nec quisquam ambiguam dicit aut sentit, nec aliud dici videri debet, quam quod se dicere sentit is, qui dicit. At cum ego' inquit 'aliud sensi, tu aliud accepisti, obscure magis dictum videri potest quam ambigue; ambigui enim verbi natura illa esse debuit, ut qui id diceret, duo vel plura diceret. Nemo qutem duo vel plura dicit, qui se sensit unum dicere.'
- ⁵⁷ Cicero, De fato, 6,12-13 = FDS 960, 473 = SVF ii 954, ii 1003, ii 1005, i 489.
- ⁵⁸ It is especially evident from reduced form of passage given in Döring 132A = Cic. *de Fato*, 6, 12-7, 13. 9,17 < FDS 437. Source companion to the above (extracted from Hieron., *adv. Pelag.* i 702, PL 23 p.502 C-D) is given in Döring 132B (*Cf. also*, FDS 991).

59 Sedley [32], p.108, n.35.

60 Ibid. i. 35.

 $_{62}^{61}$ S.E. M x 347, Döring, fr.126: (οὺκ ἄρα φθείρεται τὸ τειχίον).

62 Cf. [32], p. 108, n. 35.

63 Pfeiffer fr 260, 9-10: ό μὲν φάτο, τοὶ δ' αἴοντες πάντες ἱὴ παιῆον ἀνέκλαγον,

αὖθι δὲ μίμνον.

- ⁴ Pfeiffer, ΕΙΣ ΑΡΤΕΜΙΝ, 240-242: αὐταὶ δ', Οὖπι ανασσα, περὶ πρύλιν αρχήσαντο, πρῶτα μὲν ἐν σακέεσσιν ἐνόπλιον, αὖθι δὲ κύκλῳ στησάμεναι ηορὸν εὐρύν. Cf. also, Call. Dion. 241.
- 65 Cf. S.E. M x 109-115; Döring, fr. 126.
- 66 S.E. M x 85-86.
- 67 S.E. M x 98.
- 68 S.E. Mx 100-101.

BIBLIOGRAPHY

- [1] ARNIM, H. von (1903-5): Stoicorum veterum fragmenta. Stuttgart.
- [2] BECKER, O. (1960): Zur Rekonstruktion des 'kyrieuon logos' des Diodoros Kronos, Erkenntnis und Verantwortung: Festschrift fur Theodor Litt. eds. J.Derbolav & F.Nicolin, Dusseldorf.
- [3] BLINK, D. (1982): Ancient Philosophy and Grammar, American Classical Studies X.
- [4] BOCHEŃSKI, J.M. (1961): A History of Formal Logic. Univ. of Notre Dame Press, Notre Dame, Indiana.
- [5] CAHEN, E. (1948): Callimachus Epigrammes, Hymnes... texte établi et traduit. Paris.
- [6] DÖRING, K. (1972): Die Megariker Kommentierte Sammlung der Testimonien. Amsterdam.
- [7] DÖRING, K. (1989): Gab es eine Dialektische Schule?, Phronesis. 34(3):293-310.
- [8] GIANNANTONI, G. (1983): Socratcorum reliquiae. Naples.
- [9] Greek-English Lexicon -New Edition (1968): Liddell, H.G. Scott, R. Johnson, H.S. McKenzie, R., Clarendon Press, Oxford.
- [10] GUTZWILLER, K. (1992): The Nautilus, the Helycon, and Selenaia: Callimachus's Epigram 5 PF = 14 G.-P., Classical Antiquity. No.9 (2):194-209.
- [11] HABICHT, C. (1992): Athens and Ptolomies, Classical Antiquity. 11(1):69-90)

- [12] HINTIKKA, J. (1964): Aristotle and the "Master Argument" of Diodorus, American Philosophical Quarterly. (1):101-144.
- [13] HOROWSKI, J. (1967): Folklor w twórczosci Kalimacha z Cyreny. Warszawa.
- [14] HÜLSER, K. (1987): Die Fragmente zur Dialektik der Stoiker. Bd 1-4, Frommann-holzboog, Stuttgart.
- [15] KNEALE, M. & W. (1962): The Development of Logic. Oxford University Press, Oxford.
- [16] LONG, A. A. & SEDLEY, D. N. (1986): The Hellenistic Philosophers. Vol.i, Cambridge.
- [17] MATES, B. (1953): Stoic Logic. University of California Publications in Philosophy, Berkeley and Los Angeles.
- [18] Mithologique greecue (1982): PUF, 11c ed., Paris.
- [19] NATORP, P. (1903): "Diodoros 42)," RE 5, 1, 705-707.
- [20] NEEDHAM, P. (1975): Temporal Perspective a Logical Analysis of Temporal Reference in English. Filosofska Studier 25, University of Uppsala.
- [21] PFEIFFER, R. (1949): Callimachus. Oxford.
- [22] PRANTL, K. (1855-1870) Geschichte der Logik im Abendlande. vols i-iv, Leipzig.
- [23] PRIOR, A.N. (1955): Diodorian Modalities, Philosophical Quarterly. (5):203-213.
- [24] PRIOR, A.N. (1958): Diodorus and Modal Logic: A Correction, Philosophical Quarterly. (8):226-230.
- [26] PRIOR, A.N. (1962): Tense-Logic and the Continuity of Time, Studia Logica. (12):133-148.
- [27] PRIOR, A.N. (1967): Past, Present and Future. Clarendon Press, Oxford
- [28] RESCHER, N. & URQUHART, A. (1971): Temporal Logic Springer, New York.
- [29] RESCHER, N. (1966): A Version of the Master Argument of Diodorus, Journal of Philosophy. (63): 438-445.
- [30] SCHENKEVELD, D.M. (1991): 'Figures and Tropes A Border Case Between Grammar and Rhetoric', in ed. G. Ueding, Rhetorik Zwischen den Wissenschaften. Max Niemeyer Verlag, Tübingen.
- [31] SCHUHL, P.-M. (1960): La Dominateur et les Possibles. Paris.
- [32] SEDLEY, D. (1977): Diodorus Chronus and Hellenistic Philosophy, Proceeding of Cambridge Philosophical Society. No. 203
- [33] SCHOLZ, (1931): Geschichte der Logik. Berlin.
- [34] WHITE, M. (1986): What Worried the Craws, Classical Quarterly. 36(2):534-537.
- [35] WHITE, M. (1992): The Continuous and the Discrete. Clarendon Press, Oxford.
- [36] WILAMOVITZ-MOELLENDORFF, U. von (1906): Textgesch. d. griech. Bukoliker, Phil. Untersuchungen. No.18.
- [37] ZELLER, E. (1899): Die Philosophie der Griechen. ed.4. Leipzig.

Abbreviations in the text are corresponding to the following, above listed collections: Döring – [7], FDS – [14], Giannantoni – [8], LS – [16], Pfeiffer – [21], SVF – [1]. References to other classical sources by Greek and Latin authors are given in common forms, mostly those adopted in [9] and Short's *Latin Dictionary*.