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I. GREEK PHILOSOPHY AS A REFORM AND THERAPY OF THE ORDINARY LANGUAGE; II. HERACLITUS' EXPERIMENTS WITH LANGUAGE, GRAMMAR AND STYLE

The first part of this investigation draws attention to one understudied, and yet philosophically important approach to language in Greek philosophy from archaic times to Aristotle: the reform of ordinary language, word-making and attempts to discover or to create an ideal language or a language "conforming to nature". The following cases at point are discussed: the critique of the ordinary language as a product of doxastic imagination in Heraclitus and Parmenides associated with linguistic idealism and the theory of "linguistic error" of mortals in ancient times that resulted in the origin of polytheism and belief in the reality of the phenomenal world of many things misnamed by empty words. The elimination of the words for "birth and death", "generation and destruction" as "deceptive" and their systematic replacement by new "correct" mechanistic terminology of "excretion mixture. from recombination and dissolution" of material particles in Ionian physics (Anaximander, Anaxagoras) and Empedocles. The theory of the "disease of language" as the root of mythology and anthropomorphic polytheism of poets in Sophists (Prodicus, the Derveni papyrus), Aristotle's attempts to give names to "anonymous" moral qualities in Nicomachean Ethics. The idea of a "divine language" is to some extent anticipated in the Homeric topos of the "language of gods" which has Indo-European roots. A suggestion is made *en passant* that if the author of the "dream theory" in Plato's Theaetetus, quoted by Wittgenstein in Philosophical investigations, I.46 as an ancient antecedent of his simple "objects" in the Tractatus, is Heraclitus rather than Antisthenes (as we argue on the ground of the new reconstruction of grammatical analogy in Heraclitus' logos-fragments), then a historical link can be established between Wittgenstein's linguistic idealism and Heraclitus' analogies of "cosmic grammar" and "alphabet of nature", although in Wittgenstein's perception it was, of course, a theory of "Socrates" and Plato, not of Heraclitus. Part II is a case at point study of language and style in Heraclitus including following topics: oracular features, syntactic polysemy (hyperbaton), omission of the conjunction καί between opposites, omission of the verb 'to be' in the descriptions of phenomenal change, omission of article with words referring to 'appearances' (τὰ φανερά, τὰ δοκέοντα), replacing a standard singularis $(\pi \circ \tau \alpha \mu \circ \zeta)$ with pluralis $(\pi \circ \tau \alpha \mu \circ \zeta)$, because what we see is a series of rivers

changing every moment, Fränkel's "proportion" as a means of approaching the unknown, forms of chiasmus, chiastic (amoebean) structure of fragments as a *mimesis* of the natural cyclical processes (the 'road up and down').

Keywords: ancient philosophy, theories of language, origin of religion and mythology, Heraclitus, Parmenides, Anaximander, Anaxagoras, Empedocles, Democritus, Greek sophists, Prodicus, Plato, Aristotle, the Derveni papyrus.

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I. Греческая философия как реформа и терапия обыденного языка; II. Эксперименты Гераклита с языком, грамматикой и стилем

Первая часть этого исследования рассматривает малоизученный, но философски важный подход к языку в греческой философии от архаической эпохи до Аристотеля: реформа обыденного языка, словотворчество и попытки открыть или создать идеальный язык, "соответствующий природе". Обсуждаются следующие темы: критика обыденного языка как продукта 'доксического' воображения у Гераклита и Парменида, связанная с лингвистическим идеализмом и теорией "языковой ошибки" смертных в древности, приведшей к возникновению политеизма и веры в реальность феноменального мира, сконструированного из "пустых слов»," обозначающих не сущности, а процессы. Исключение из языка слов "рождение и гибель" как "обманчивых", их систематическая замена новой "правильной" механистической терминологией "выделения, разделения, соединения, распада» материальных частиц в ионийской физике (Анаксимандр, Анаксагор) и Эмпедокла. Теория "болезни языка" как корня мифологии и антропоморфного политеизма поэтов у софистов (Продик из Кеоса, Дервенийский папирус) и у Демокрита. Попытки Аристотеля дать имена "безымянным" (ανώνυμα) качествам характера в "Никомаховой этике". Идея "божественного языка" в какой-то степени предвосхищается в гомеровском топосе "языка богов", имеющего индоевропейские корни. Автора теории структурного изоморфизма языка и космоса, "услышанной во сне" Сократом в «Теэтете» Платона, предлагается отождествить не с Антисфеном, а с Гераклитом на основании нашей реконструкции грамматической (алфавитной) аналогии в гераклитовских фрагментах об "этом логосе". Витгенштейн в "Философских исследованиях", І.46 цитирует "приснившуюся теорию" Платона как предвосхищение его простых "объектов" в "Трактате". Таким образом можно установить историческую связь между лингвистическим идеализмом Витгенштейна и гераклитовскими аналогиями "космической грамматики" и "алфавита природы", хотя сам Витгенштейн считал эту аналогию теорией Сократа и Платона, а не Гераклита, имя которого у Платона не упоминается. Часть II в качестве показательного примера реформы языка на практике в текстах Гераклита рассматривает следующие темы: оракульные черты, синтаксическая полисемия (гипербатон), пропуск союза каі между противоположностями, пропуск глагола "быть" (єї́vаı) в описаниях феноменальных процессов, опущение артикля со словами, относящимися к "видимостям" (та фаvɛрá, та бокéovta), так как артикль субстанциализирует события, замена стандартного единственного числа ($\pi o \tau \alpha \mu \delta \zeta$) на множественное число ($\pi o \tau \alpha \mu \delta \zeta$), так как мы видим не одну, а ряд мелькающих рек, сменяющих друг друга каждое мгновение вследствие "притока" новой воды. "Пропорция Френкеля" как когнитивный прием аналогического познания неведомого. Хиазм, его типы и функция в синтаксисе Гераклита, хиастическая (амебейная) структура логоса (текста), как воспроизведение (мимесис) природных циклических процессов ("дорога туда-обратно").

Ключевые слова: античная философия, теории языка, происхождение религии и мифологии, гипотеза лннгвистической относительности, лингвистический идеализм, Гераклит, Парменид, Анаксимандр, Анаксагор, Эмпедокл, Демокрит, греческие софисты, Продик, Платон, Аристотель, Папирус из Дервени, Витгенштейн.

The interest of Greek philosophers to the phenomenon of language was multi-aspect¹. We can distinguish at least five main aspects. First, they were interested — and at a very early stage — in fundamental theoretical questions relating to the origin of the language and the related problem of the natural / conventional character of "names", as well as to the field of "etymology." Secondly, starting with the sophists, the grammatical and semantical aspects of the language. Thirdly, especially since the time of the Athenian schools of the 4th cent. BC., logical studies. Fourthly — also starting with the Sophists — aesthetic and poetic aspects, the study of the artistic and expressive means of language; Aristotle classed rhetoric and poetics as "technological" or productive knowledge, similar to medicine and shoemaking. And finally, fifth, we can single out another aspect, or rather, an approach to language, namely, a critical and reformative approach, something like

¹ Part (I) of this study is a revised and expanded version of an earlier version in Russian: Lebedev 2009. Part II relies on the chapter 3 of my introduction to the monograph 'The logos of Heraclitus' (Lebedev 2014: 43–58). The present study excludes a detailed discussion of Heraclitus' metaphorical language, a special subject which I have treated with more detail in Lebedev 2014, 59–96; Lebedev 2017¹ and 2020².

linguistic therapy, the work of "correcting" the language and bringing it into conformity with reason and reality, as well as projects to create an ideal and perfect language.

Whereas the first four aspects are well known and are covered in the extensive scholarly and philosophical literature², the last aspect, to the best of our knowledge, has not attracted much attention and sometimes is simply ignored. This can be explained by the fact that the first four aspects were treated in ancient classical treatises on the philosophy of language (like Plato's *Cratylus*), on grammar, logic, rhetoric, etc., whereas in the "reform of language" philosophers were often engaged *en passant* whenever it was necessary, therefore the relevant "reformative" passages and remarks come from a variety of contexts: metaphysical, logical, physical, ethical, etc. The purpose of this paper is to draw attention to this underestimated aspect and try to show that it is by no means marginal by its philosophical meaning and importance.

Generally speaking, any introduction of new scientific and philosophical terminology is, in a certain sense, a reform of ordinary language. Therefore, we can say that the Greek philosophy itself was such a reform-of-language activity. This is a subject without boundaries, but we are currently interested in the "language reform" in a narrower sense, namely as a declared task and a corresponding praxis of "correcting" the ordinary language.

We are talking about texts in which Greek philosophers deliberately act as reformers of ordinary language and do not just introduce lexical or semantical neologisms, but at the same time suggest to eliminate some common words and expressions from the language as "incorrect" or meaningless. In such contexts the philosopher feels himself like a new name-giver (*onomatothetes*) who brings order into a neglected and disorderly "language household", who "cleans" it; or as a language therapist who cures the disease of the language and restores its natural norm.

It is the knowledge of the true nature $(\phi \dot{\sigma} \iota \varsigma)$ of things (ignored by *hoi polloi*) that serves as the theoretical basis for the reform and at the same time justifies it. At the initial stage, in the late archaic

² For theories of the origin of language in connection with the history of civilization, see, e. g., Levine Gera 2003; Verlinsky 2006; Lebedev 2019. On the philosophy of language in general and epistemological problems: Schofield, Nussbaum 1982; Robb 1983; Joly 1986; Kraus 1987; Denyer 1991; Everson 1994; Havelock; Modrak 2006; de Jonge C. and vam Ophuijsen J.M. 2010; Long 2011; Kotzia and Chriti 2014;

period (i. e., before 480 BC), the critique of the ordinary language is inextricably linked with the epistemological critique of the "doxastic" world (and polytheism) in which the unenlightened many (oi $\pi o\lambda \lambda oi$) live. The teachers of the crowd, according to philosophers, were, of course, the poets who "tell a lot of lies" ($\pi o\lambda \lambda a$ $\psi \epsilon \upsilon \delta ov \tau \alpha \iota a o \upsilon \delta oi$) and who, in particular, invented the non-existent anthropomorphic gods. Metaphysical monists like Heraclitus and Parmenides, who considered the phenomenal world of the plurality an illusion produced by the deceptive sense-perception, directly linked its "deceptiveness" to the deceptiveness of the multitude of "names" that fragment the ontological One and split it into a plurality of imaginary non-entities. In the poem of Parmenides we find the most radical version of this theory anticipating not so much the relatively mild hypothesis of "linguistic relativity" of Sapir and Whorf type, as an extreme and radical form of linguistic idealism.

Linguistic idealism is attributed to Wittgenstein particularly on the ground of his dictum "The limits of my language mean the limits of my world" (TLP 5.6) by G. E. M. Anscombe (1981) and Bloor (1997: 354-382) whom we follow; on the controversy around this thesis see Dilman (2002) 110 ff. Bernard Williams attributed to Wittgenstein a kind of Kantian transcendental idealism (Williams 1973), this thesis was accepted by many and contested by some (e.g., by Hutto 2003: 174 ff.). We find no contradiction between the approaches of Anscombe and Williams since the linguistic idealism is a form of transcendental idealism. In his Philosophical investigations, 46 Wittgenstein first quotes the passage from Plato's Theaetetus 201d about the "dream theory" allegedly "heard" by Socrates in his dream which contains an analogy between the structure of language and the structure of reality: both are built from simple "letters" or elements (στοιχεῖα). After the quote Wittgenstein comments that both Russel's "individuals" and his "objects" in the *Tractatus* "were such primary elements". In our study of the alphabet analogy in Heraclitus' logos-fragments³ we argue contra Myles Burnyeat and others that the author of the "dream theory" in *Theaetetus* is Heraclitus rather than Antisthenes. If this attribution is correct (as we believe it is, because such analogy is directly attested only in Heraclitus' authentic fragments, but is only hypothesized for Antisthenes without supporting evidence), then Wittgenstein admits the similarity of the philosophy of *Tractatus* with Heraclitus' theory of the cosmic logos which contains elements of linguistic idealism.

³ Lebedev 2017¹: 235 ff., on *Theaetetus* passage p. 242 ff.

although for Wittgenstein it was a theory of "Socrates" and Plato, and not of Heraclitus whose name is not mentioned in this Platonic passage.

The Sapir/Whorf hypothesis of linguistic relativity is akin with cultural relativism, it holds that the language we speak *affects* our perception of the world, the strong form of linguistic idealism amounts to the claim that language *determines and creates* our picture of the world. For the precise understanding of this theory in archaic monists one peculiar feature of the archaic Greek metaphysics must be taken into account: after Anaximander both Parmenides and Heraclitus recognize the polar structure of the sensible world, that is, multiplicity is reduced to duality, since all sensual qualities form pairs of opposites: the hot and the cold, the wet and the dry, light and darkness, etc. About the same time, the principle of reduction of plurality to duality is explicitly formulated by Alcmaeon of Croton: $\delta \dot{v} \sigma \tau \alpha \pi \alpha \lambda \lambda \alpha \tau \tilde{\omega} v \dot{\alpha} v \theta \rho \omega \pi i v \omega v$ "most things of human experience are dual"⁴.

But unlike Anaximander and Alcmaeon, who considered the cosmic opposites to be real physical "forces" (*dynameis*), Parmenides and Heraclitus considered them a product of human perception, that is, a subjective "doxa", and not an objective "truth" (*aletheia*). The apparent multiplicity (which can be reduced to polarity) of the world, according to the second part of the poem of Parmenides, is the result of a linguistic error committed in the past when names were attached to things. Mortals "distinguished" and called by separate names $\mu op\phi \alpha \varsigma$... $\delta \omega$ "two forms" (Light and Night), "of which one should not have been named".

Parmenid. B 8.53 Μορφὰς γὰρ κατέθεντο δύο γνώμας ὀνομάζειν τῶν μίαν οὐ χρεών ἐστιν — ἐν ῷ πεπλανημένοι εἰσίν — τἀντία δ' ἐκρίναντο δέμας καὶ σήματ ἔθεντο χωρὶς ἀπ'ἀλλήλων ...

"Erroneously" was named, and therefore taken for something real the "form" of Night, which is not a separate entity, but just a negative concept, i. e., the absence of Light. This error is the root not only of the false belief (doxa) in the multiplicity of the phenomenal world (and hence of the multiplicity of popular gods), but also of the erroneous notion that something can arise from nothing or be destroyed into nothing. Therefore, the words "birth" and "death" themselves are considered meaningless and subject to

 $^{^4}$ 24 A 3 DK. For a new reading of 24 B 1 and neglected evidence on Alcmaeon's epistemological proem and his theory of opposites see Lebedev 2017³.

elimination as incorrect. The basis for the reform of ordinary language in Parmenides is the strictly conventionalist theory of the origin of "names".

Parmenides B 8.36 DK ... οὐδὲν γὰρ <ῆ> ἔστιν ἢ ἔσται ἄλλο πάρεξ τοῦ ἐόντος, ἐπεὶ τό γε Μοῖρ' ἐπέδησεν οὖλον ἀκίνητόν τ' ἔμεναι· τῷ πάντ' ὄνομa ἔσται, ὅσσα βροτοὶ κατέθεντο πεποιθότες εἶναι ἀληθῆ, γίγνεσθαί τε καὶ ὅλλυσθαι, εἶναί τε καὶ οὐχί, καὶ τόπον ἀλλάσσειν διά τε χρόα φανὸν ἀμείβειν. "...for there is nothing and nothing will ever be except that which is, since Moira has bound it to be whole and immobile. Therefore, just an empty name will be all that mortals have set (in their language) being persuaded that it is real: "to be born and to perish", "to be and not to be", "to change place and the bright color".

In our study of the imagery and metaphysical doctrine of Parmenides' poem (Lebedev 2017^2) we argued in detail that the opposition "light and night" in the second part of the poem (Doxa) is exactly parallel to the fundamental opposition being/non-being in the first part (Aletheia); from this it follows that "night" corresponds to "non-being". Given the abundant evidence on the Pythagorean background of Parmenides and peculiarly Pythagorean tenets detectable in his poem we suggest that the opposition of "light and night" in Parmenides is based on the same symbolism as the opposition "light and darkness" in the Pythagorean Table of opposites where "night" is a symbol of corporeal substance, and "light" of the immortal psyche or mind⁵. Therefore, by saying that of the two opposites night "should not have been named" the goddess means that body does not exist, it only "becomes" ($\gamma i \gamma \nu \epsilon \tau \alpha i$), but not "is" (ἔστι). Speaking in modern terms, this is a doctrine of monistic idealism or immaterialism which is also explicitly stated by Parmenides in fr. B3.

The Neoplatonic commentators of Aristotle's *Organon* Ammonius, Simplicius and Philoponus explained the origin of phonetic

⁵ For this interpretation of the Table of opposites in Aristotle's Metaphysics Alpha we argue in detail in Lebedev 2019 and Lebedev 2022¹ (the neglected evidence of the fifth century B.C. cleromantic and pythagorizing graffiti from Olbia Pontica). For the superiority of the longer version of Aristotle's reference to Alcmaeon see Lebedev 2017³: Once we accept the authenticity of the longer version with the name of Pythagoras, it follows that Aristotle attributes the Table of opposites to the 'earlier' group of Pythagoreans (oi πρò τούτων), i. e., to sixth century Pythagoreans including Pythagoras himself.

human language with its diversity and conventional character as a result of the original 'fall' of the soul from the intelligible celestial paradise and from the divine 'One' into the sensible world of phenomenal plurality and diversity; after the incarnation in mortal body and the loss of ability to communicate by mental means through voήµaτa (in Mentalese, so to speak) humans were forced by "need" ($\chi \rho \epsilon i \alpha$) to invent phonetic languages, which are all diverse and conventional. Maria Chriti 2019 aptly compares this doctrine with the biblical myth of the Tower of Babel. The roots of this Neoplatonic doctrine should be sought in Plato's *Cratylus* and much earlier in the linguistic idealism of Parmenides and Heraclitus, whose even more ancient common source may be Pythagoras of Samos. A Pythagorean *akousma* of the archaic $\tau i \mu \alpha \lambda_1 \sigma \tau \alpha$ type says:

Τί σοφώτατον; ἀριθμός, δεύτερον δὲ ὁ τοῖς πράγμασι τὰ όνόματα θέμενος. "What is wisest? Number, and secondarily the one who attached names to the things"⁶. The juxtaposition of the highest and second degrees of wisdom is based on the typical for the archaic Greek philosophy opposition of the divine and human knowledge. Number is divine, language us human. The 'secondary' character of names refers not only to the secondary degree of language-based wisdom (as opposed to mathematics), but also has a temporal connotation. The knowledge of number and number-based divine *harmonia* is innate to the human psyche: as the ancient Pythagorean oath puts it, où μὰ τὸν ἁμετέραι κεφαλᾶι παραδόντα Τετρακτύν, παγὰν ἀενάου φύσεως ῥίζωμά τ'ἔχοισαν "nay, by him who gave to our head the Tetraktys, which contains the source and the root of the eternal nature⁷". Human soul possessed this knowledge before the "fall into generation" in the celestial paradise called in Pythagorean mystical language Ἀλήθεια (Parmenides, Empedocles and Plato) when it was integral part of the divine One. The name-givers of the ancient times were forced by their corporeal state to invent an external medium of communication, 'attaching' or

⁶ Iambl. *V.P.* 82 = DK 58 C 4.

⁷ *Placit.* 1,3,8 = DK 58 B 15. "He who gave" is the Pythagorean supreme god-demiourgos conceived as pure mind (vo $\tilde{v}\zeta$). Contrary to widespread mistaken opinion that demiourgos is Plato's invention, the Pythagorean creator god is attested in Epicharmus (Lebedev 2017), Philolaus (DK A 17; B6). He is identical with cosmic Harmonia in Philolaus: it is the power that combines the opposites and constructs the cosmos. In Empedocles Harmonia is one of the names of Philotes (*aka* Aphrodite) who acts as a creator. In Parmenides B13 the physical cosmos is also created by Aphrodite.

'setting' names (ὀνόματα) to things. When the revealing goddess in Parmenides tells Kouros that 'mortals' in times immemorial committed a mistake by positing or 'setting' two different names for 'light' and 'night' instead of only one for 'light' (since 'night' is not a separate substance, but just absence of 'light'), she most probably refers to mythical 'name-givers'. We have argued elsewhere that the Apollonian image of divinized Kouros in Parmenides' proem resembles Apollo Hyperboreios, the flying god, and according to the most probable reading of line 3, he actually is flown by goddess (ποτ η ι φ έρει) in a winged chariot from sublunary darkness of human world to the celestial gates ($\alpha i \theta \epsilon \rho i \alpha i \pi i \lambda \alpha i$) of the temple of gods, the realm of $\lambda\lambda\eta\theta\epsilon\alpha$ (this is the name of the revealing goddess and of the abode of the disembodied souls). The first-person language of the proem is explained by the fact that originally Parmenides' poem, following the Pythagorean convention, was conceived, as a 'sacred word of Pythagoras.' The old legislator and medical doctor from Elea could hardly claim that he flew to heaven, was divinized and spoke with the gods. No one would believe him, but stories about Pythagoras' wonders, including anabasis and katabasis were widespread, since he was venerated by his disciples as a superhuman being, namely as Apollo Hyperborean, flying on the miraculous arrow of Abaris. The story of Kouros' travel is a reversed story of the 'fall' of human soul from "the meadow of Truth" (λειμών Άληθείης) to the "meadow of Doom" (λ ειμών Άτης), speaking in Empedocles' terms. The epic word $\pi \sigma \tau \eta$ in line 3 means not just 'flight', but 'taking off', 'flying up', i. e., 'ascension' or anabasis.⁸ In the 'fall' from heaven to earth human soul forgets the divine 'one' and the ability of noetic communication with it, on earth she is in 'need' of imperfect conventional language of phonetic signs. Parmenides' Kouros, on the contrary in his ascension from earth to heavens forgets the human language of conventional diversity and acquires the mantic capacity of perceiving directly by mind the ineffable divine reality, conceived as 'invisible Sun of Justice', the

⁸ In *Odyssey* 5.337 Leucothea transformed herself into a diving bird and 'ascended from sea by flight' (ποτῆι ἀνεδύσσατο λίμνης). Combination of ποτή and φέρεσθαι seems to be a set phrase in epic language, cf. Arat. 278. Unlike other proposed emendations, it is a very rare epic word, therefore its corruption is not surprising at all. On the relation between this line of Parmenides and the image of winged chariot on Plato's *Phaedrus* 246a see Lebedev 2017²: 502; on the imagery of *theoria* as a trip to celestial temple-oracle see *ibid.*, 505 ff.

immutable sphere of eternal divine light. This Pythagorean conceptual metaphor is alluded to by Parmenides in B 8.14, it was known to Heraclitus as 'the light that never sets' (fr.152Leb/B16) and imitated by Plato in the Sun analogy of the *Republic* (507b–509c).

The situation is more complicated with the reconstruction of the theory of "names" in Heraclitus. In Plato's Cratylus the Heraclitean Cratvlus defends the thesis of "natural" character of names, and on this ground such theory has been often attributed to Heraclitus himself. But if we turn to the authentic fragments of Heraclitus himself, which deal with "name" and "names," we find in them a different theory: practically all these fragments affirm that the "name" of a thing does not match its *ergon* that is, it's real function: "The name of the bow is life, and its work ($\check{\epsilon}\rho\gamma\sigma\nu$ $\delta\dot{\epsilon}$) is death "(28Leb/B48); the genital organ (aiδoĩov) gives rise to a new life, but its name is derived from the name of the god of death (Aides) (148Leb/B15); people usually speak about "justice" (dike) in the court, so this word is actually connected with "injustice" (119Leb/B 23). The name of Zeus only partly corresponds to the essence of the supreme god and partly contradicts it (οὐκ ἐθέλει) (141Leb/B32), apparently because his "work" is not only to generate "life" ($\zeta \eta v \sim$ Zηνός), but also to destroy since life and death form an inseparable unity, the genesis of one thing is always a death of another.

On the ground of these fragments, it can be concluded that according to Heraclitus, separate words ("names") of the ordinary language are incorrect names, although they are established according to the same nomination principle, namely *a contrario*.

Finally, fragment 43Leb/B67 explicitly affirms the doxastic illusory nature of all individual cosmic phenomena that make up pairs of opposites: the "names" here correspond to deceptive "frag-rances" (that is, subjective sensations) of incense, the real nature of which is one and the same, fire. Consequently, historical Heraclitus could never recognize the "naturalness" of the ordinary language and the correspondence of "names" to their real denotates, simply because, in his opinion, such denotates do not exist as separate entities.

Based on our reconstruction of the metaphorical model of the cosmic Logos conceived as a visible "Book of nature" composed in "alphabet of nature" (Lebedev 2014: 61 ff.; 2017¹), one can assume that Heraclitus did have a theory of "natural language" and of "natural names", but he considered the names of ordinary language as only meaningless (lacking logos) 'letters' of the cosmic alphabet

which shoud be always 'grasped together' as 'syllables' 'syllables' ($\sigma \upsilon \lambda \lambda \dot{\alpha} \psi \iota \varsigma$)⁹, which, in turn, should be all without exception integrated into one and the same ($\dot{o} \alpha \dot{\upsilon} \tau \dot{o} \varsigma \dot{\alpha} \pi \dot{\alpha} \tau \tau \omega \nu$) 'common logos' (ξυνός λόγος) of the Universe, the *vox Naturae*, if you 'listen to it' with your ears ($\dot{\alpha} \kappa \omega \dot{\omega} , \dot{\epsilon} \pi \alpha \tilde{\omega}$), or 'the book of Nature' if you 'read it'¹⁰ with your eyes which are 'more trustworthy witnesses than ears' (fr. 5Leb/B17).

This explains one enigmatic feature of Heraclitus' style: in the authentic fragments the conjunction kai between opposites is regularly omitted, although in later paraphrases and imprecise quotations it was often "restored". In these texts Heraclitus reforms the Greek language, eliminating the conjunction καί as a wrong diairesis and a kind of language disease of which the poets are guilty. Hesiod did not know that Day and Night are one and the same (14Leb/B57) because he committed the same mistake as the "mortals" of Parmenides in naming "light and night" separately: he mistook two syllables of a single natural name (or rather two letters of a natural syllable of common logos) for two different names of non-existing 'things'. Thus, Heraclitus adhered to conventionalism with respect to ordinary names (in a complete agreement with Parmenides), and to the theory of "naturalness" with respect to integral, restored and reunited in one and the same word opposites. Parmenides (B6) protested against this in his attack on "two-headed" philosophers, i. e., Heraclitus, because for him it was a violation of the law of non-contradiction. It can also be assumed that Heraclitus collected examples of the nomination a contrario as archaic "survivals" confirming the initial unity of opposites in the primordial "natural language" subsequently distorted and spoiled by the poets. The Derveni author, i.e., Prodicus of Ceos, made a

⁹ In fr.106+108Leb/B10)

¹⁰ Ionian ἐγκυρέω semantically and by its usage corresponds to the Attic and koine ἐντυγχάνω in the phrase ἐντυγχάνω βιβλίωι 'to read a book', literally 'to encounter', or 'to converse with'. Cf. LSJ, s.v. ἐντυγχάνω III. Oi ἐντυγχάνοντες 'readers'. The standard later Greek verb for reading ἀναγιγνώσκω is never used in this sense in Heraclitus, Herodotus or early Ionian prose. A synonymous word for reading the book of nature in Heraclitus is γίνεσθαι κατά 'to encounter' in fr.2Leb/B1 DK. Unlike most modern interpreters of Heraclitus, Marcus Aurelius perfectly inderstood the meaning of γινομένων κατὰ τὸν λόγον τόνδε in his paraphrase ὦι μάλοστα διηνεκῶς ὑμιλοῦσι λόγωι... (Her. fr.3Leb/B72).

modified version of this theory of Heraclitus the basis of his theory of the origin of religion and divine names (see Lebedev 2019).

The archaic monists are engaged in this case with the problems that in our days are studied by *mereology*, a branch of metaphysics and mathematical logic that concerns itself with the relation of parts and wholes. We have argued elsewhere in detail (Lebedev 2017^{1}) that Heraclitus had no "theory of logos" in the strict sense, although logos was a fundamental concept of his logic, philosophy of language, metaphysics, epistemology, theology, as well as ethics and politics, contrary to the "trivial" or verbal interpretation of the phrase τοῦ λόγου τοῦδε as "this discourse of mine" by Burnet, West and there followers. Strictly speaking, Heraclitus developed an elaborate "logos analogy" of the Universe similar to the one described by Plato in the "dream theory" of Theaetetus. Logos in this analogy stands for the Whole or the cosmos, "letters" for the separate opposites (like those enumerated in 106Leb/B10 and 43Leb/B67), and "syllables" ($\sigma \nu \lambda \lambda \dot{\alpha} \psi \epsilon \varsigma$) for the pairs of opposites which have been wrongly "divided" by the poets and the crowd. Once we accept the authentic text of fr.2Leb/B1 quoted by Hippolytus (always the superior source of Heraclitus' quotations), without explicative ἕκαστον added by Sextus and uncritically adopted by all editions after DK, the object of the verb διαιρέων becomes the pair "words and deeds" ($\xi\pi\eta$ $\kappa\alpha\lambda$ $\xi\rho\gamma\alpha$) which exactly corresponds to the pair "to act and to speak" ($\pi o \epsilon \tilde{i} v \kappa \alpha i \lambda \epsilon \gamma \epsilon i v$) in the same context. The elimination of this faulty addition of Sextus transforms the subject of Heraclitus' book from physicalist "explanation of everything" into logical and epistemological "division" (διαίρεσις) of the "words" of the cosmic "this logos". Δ ιαίρεσις was also a common grammatical term for the correct "division" of separate words in reading the scriptio continua of all ancient text. Reality for Heraclitus is a kind of speech or text (logos) which can be "read" and understood only by correct "division". The correct *diairesis* becomes a fundamental method of Heraclitus' reform of language.

In addition to the experiments with the conjunction $\kappa\alpha i$ Heraclitus also sought to reform the use of the verbs "to be" ($\epsilon iv\alpha i$) and "to become" (or "to arise", $\gamma iv\epsilon\sigma\theta\alpha i$). Contrary to the widely held mistaken view of the priority of Parmenides, Heraclitus already before Parmenides knew the fundamental ontological distinction between being and becoming. Although the precise degree of the verbal authenticity of some Heraclitus' fragments remains problematic, we have the impression (especially based on the virtually impeccable quotations from such sources as Hippolytus) that he consistently sought to eliminate the verb εἶναι 'to be' from the description of the phenomenal world of opposites and cyclical change. Instead, he uses in such cases the verb γίνεσθαι and verbal predicates (ψυχρὰ θέρεται, θερμὰ ψύχεται 46Leb/B126) or *asyndeton* omitting the copula (e.g., ἀθάνατοι θνητοί, θνητοὶ ἀθάνατοι 153Leb/B62, πυρὸς τροπαὶ πρῶτον θάλασσα 44Leb/B 31). On the contrary he confines the use of the verb "to be" to eternal beings like Cosmos, Fire, Logos, Aion. Already in Fragment 2Leb/B1 we have the contrast between γίνονται ἄνθρωποι and λόγου τοῦδε ἐόντος. In fragment B 37L3b/30 we have an emphatic triple ἦν ἀεὶ καὶ ἕστι καὶ ἕσται in the description of the eternal divine fire.

Another example of Heraclitus' reform of the ordinary language is the regular omission of article when he refers to the separate phenomena of the sensible world (Lebedev 2014: 53). These phenomena, according to Heraclitus, are not self-subsistent entities, but rather aspects of the same common substrate or different phases of the same process, like increase and decrease, light up and go out etc. The addition of article makes a phenomenon into autonomous substance. Plato perfectly understood the metaphysical implications of this peculiar feature of Heraclitus' style: that is why in the exposition of the «dream theory» in *Theaetetus* 201d, i. e., of Heraclitus theory of cosmic logos, it is prohibited to apply expressions like "itself", "this", "that" etc. ($\alpha \dot{\nu} \dot{\sigma}$, $\tau o \tilde{\nu} \tau \sigma$, $\dot{\epsilon} \kappa \epsilon \tilde{\nu} vo$) to "first elements", i. e., to opposites that constantly undergo a cyclical change ($\pi \epsilon \mu \tau \rho \dot{\chi} 0 \nu \sigma$) and therefore lack self-identity.

In our opinion the doctrine of the linguistic idealism held by both Heraclitus and Parmenides is a form of transcendental idealism (rather than subjective idealism) which does not deny the existence of objective reality, but only questions the ability of the "human knowledge" (i. e., of sense-perception) to grasp this reality. Both are realists in metaphysics and epistemology and both ascribe a kind of embodied (rather than theoretical) subjective idealism and solipsism to the unphilosophical *hoi polloi* who are blinded by the false language invented by poets. Both claim to be exceptions from this tragic condition of humanity: it is the inner vision of *noos* that allows them to see what is going on behind the veil of *apate* imposed by the false language. But they differ dramatically in their conception of that divine reality: in Heraclitus it is full of life energy and cyclical motion, in Parmenides it is immobile and immutable. They also disagree in their evaluation of the senses: for Parmenides

they are worthless and always deceptive, for Heraclitus they can be trusted once we understand the symbolic language in which they speak to us. This disagreement is rooted in the fundamental typological difference of the Ionian and Italian metaphysical paradigms. Heraclitus is an Ionian and remains a naturalistic monist, although his concept of *physis* is reinterpreted teleologically, theologically (within the limits of his pantheism), as well as ethically (as a standard of human life) and politically (as a paradigm of the ideal politeia). Parmenides is a Pythagorean and remains a dualist: for him the transcendental reality is not a corporeal *physis*, but incorporeal mind (B 3). In the philosophy of language Parmenides is also more radical than Heraclitus in his rejection of the names of ordinary language as empty and deceptive. According to Heraclitus, the conventional names of opposites are just 'letters' of the cosmic alphabet and therefore each one of them, taken separately, is meaningless. However, once we "grasp them together", i.e., combine in "syllables" (συλλάψιες in B 10/106 L is an Ionian word equivalent to the Attic συλλαβαί, cf. Lebedev 2017-1; 2014: 108-the Universe, they acquire meaning as parts of the whole.

The mechanistic corpuscular physics of the 5th century BC (Empedocles, Anaxagoras, Democritus) by no means denies the reality of the physical world and multiplicity, and yet it continues to insist on the illusory character of generation and destruction. In reality, as they claim, there is only separation, mixing and recombination of particles of the indestructible matter, but mortals mistakenly call these processes "birth and death". Empedocles announces the birth ($\varphi \dot{\varphi} \sigma_{IS}$) an empty name:

Φύσις δ' ἐπὶ τοῖς ὀνομάζεται ἀνθρώποισι (Emped. B 8 DK).

In the fragments of Anaxagoras, the words for generation and destruction, or birth and death, are eliminated and are not used. Instead, Anaxagoras consistently uses special terminology to describe the formation and decomposition of complex bodies, which is based on the root $\kappa\rho\nu$ - with different prefixes. The emergence of something is described as "excretion" from a mixture ($\dot{\alpha}\pi\sigma$ - $\kappa\rho\nu\epsilon\sigma\theta\alpha$), the formation of something as coalescence from parts ($\sigma\nu\gamma$ - $\kappa\rho\nu\epsilon\sigma\theta\alpha$), disappearance as "separation", i. e., dissolution into its component parts ($\delta\iota\alpha$ - $\kappa\rho\nu\epsilon\sigma\theta\alpha$). The usage of words is brought in conformity with "nature," i. e. objective reality. Anaxagoras, obviously, developed and improved the terminological

system for the description of physical processes, already created by Anaximander¹¹.

Democritus, who believed after Heraclitus, that "the word is a shadow of the deed" (λόγος ἕργου σκιά)¹², was a tireless wordmaker who invented new physical terms: obviously, such words as ἀμειψιρρυσμίη ('change of form, ῥυσμός', i. e. "transformation") or ἐπιρρυσμίη (δόξις) for subjective opinion were his creations.¹³ Democritus, too, avoided the use of incorrect words like "birth and death", and he invented the word δέν to designate atoms in contrast to "none" (οὐδέν), the word for the empty space¹⁴.

Until recently we knew very little about the content of the Sophistic works on the "correctness of names" orthoepeia (Περὶ $\dot{o}\rho\theta o\epsilon\pi\epsilon i\eta \zeta$), but now the situation has changed. The title $\Pi\epsilon\rho i$ 'On orthoepeia' is attested for three roughly όρθοεπείης contemporary fifth-century thinkers, Protagoras, Prodicus and Democritus, all three of them knew each other, shared the same history of human civilization and wrote in Ionian prose. Plato, while citing or criticizing their views, employs a somewhat different phrase Περι ὀρθότητος τῶν ὀνομάτων 'On the correctness of names', the main subject of Plato's Cratylus. Since abstract name in -ótnc are generally typical for Plato and Aristotle, and since the noun ὀρθότης is alien to early Ionian prose, it seems likely that όρθότης τῶν ὀνομάτων is Plato's fourth century rendering in Attic prose of the fifth century Sophistic Ionian ὀρθοέπεια (pace A.Novohatko in Montanari 2020: 102). It was a science of practical linguistics, concerned with norms of the correct use of language, in Prodicus primarily with semantics and stylistics. In Plato's version focus was shifted towards cognitive linguistics and the epistemological problems, the relation between the sign and referent etc., and the reliability (if any) of the phonetic language for the search of truth. The term $\partial \rho \theta o \epsilon \pi \epsilon i \alpha$ itself indicates their "correctional" purpose: the correct use of words. If our attribution of the Derveni papyrus to Prodicus of Ceos is correct (as we believe it

¹¹ For a detailed reconstruction of Anaximander's theory of matter and material change, as well as for neglected examples of Anaxagoras' borrowings from Anaximander (e. g., the gold-washing analogy in the theory of cosmogonical vortex) see Lebedev 2022².

¹² B145 DK.

¹³ ἀμειψιρυσμίη A 33, B 139, cf. ἀμειψίχροος. B7: ἐπιρρυσμίη ἐκάστοισι ή δόξις.

¹⁴ B156; A37; A 49 DK.

is, see Lebedev 2019), and even regardless of its authorship, since the sophistic origin of this text is virtually certain, this gap can be filled. The Derveni author, whose main interest is focused not so much on the problem of language as such, as on the origin of religion and mythological names, following the basic principle of the theory of nomination of Heraclitus (the natural meaning of a word is determined by the "function" or "work" — ἔργον — of the object it denotes), reconstructs the original meaning of divine names conforming to "nature". In many respects he anticipates the theory of Max Müller about mythology as a disease of language. For those who "correctly understand" (ὀρθῶς γινώσκουσι) the enigmatic poetry of Orpheus his theogony does not contain anything that contradicts the physics of Anaxagoras, since Orpheus was a prehistoric naturalist philosopher, whose text was misread and misunderstood by the ignorant *polloi*. Thus, the anthropomorphic polytheism, exactly as in the theory of the archaic monists, also turns out to be a result of "linguistic error": correct the language, and there will be no Homeric gods, but only air and the cosmic Mind of Anaxagoras. The fact that for this purpose the Derveni author chose the theogony of "Orpheus," which by this time (circa 430 BC) had become a kind of "Holy scripture" for the religious conservatives like the seer Diopeithes, testifies to his sense of humor and to the intensity of ideological battles at the time of the Sophistic Enlightenment and processes against philosophers-naturalists in Athens during the Peloponnesian war.

According to Aristotle's testimony in the first book of *Physics*, at the time of the Sophists the mereological paradoxes associated with the use of the verb "to be" continued to be discussed. Some sophists believed that in sentences like "Man is white", the verb "is" leads to the contradictory combination of unity and plurality in the indivisible single subject — white man. To avoid this contradiction and to bring language in conformity with reality, "some, like Lycophron, omitted the verb "to be", while others reshaped the expression (thv λ έξιν μετερρύθμιζον) and instead of "man is white" they used to say "man has-been-whitened"¹⁵. It is interesting that

¹⁵ Arist. Phys. I 2.185b25 έθορυβοῦντο δὲ καὶ οἱ ὕστεροι τῶν ἀρχαίων ὅπως μὴ ἅμα γένηται αὐτοῖς τὸ αὐτὸ ἓν καὶ πολλά. διὸ οἱ μὲν τὸ ἐστὶν ἀφεῖλον, ὥσπερ Λυκόφρων, οἱ δὲ τὴν λέξιν μετερρύθμιζον, ὅτι ὁ ἄνθρωπος οὐ λευκός ἐστιν ἀλλὰ λελεύκωται, οὐδὲ βαδίζων ἐστὶν ἀλλὰ βαδίζει, ἵνα μή ποτε τὸ ἐστὶ προσάπτοντες πολλὰ εἶναι ποιῶσι τὸ ἕν, ὡς μοναχῶς λεγομένου τοῦ ἑνὸς ἢ τοῦ ὄντος. πολλὰ δὲ τὰ ὄντα ἢ λόγω (οἶον ἄλλο τὸ

Aristotle uses here the verb $\mu\epsilon\tau\alpha\rho\rho\upsilon\theta\mui\zeta\omega$ which means "to reshape, to re-form, to remodel", sometimes with the connotation "to amend, to correct"¹⁶.

The Olympic gods suffered no harm from the attempt of Prodicus and of Aristophanes' 'Socrates' in the Clouds to dissolve them in the air. Both Heraclitus and Parmenides failed to convince the Greeks that the separate words for "day" and "night" should be removed from the Greek language as incorrect. The new philosophical terminology, like that of Anaxagoras, that eliminated from the vocabulary words for "generation and destruction" (or "birth and death"), on the ground that such words contradict the fundamental law of physics ex nihilo nihil fit, never spread beyond the walls of those school. All attempts of the philosophers to reform the ordinary language had no more impact on the speech of the "hoi polloi" than Prodicus' proposal to rename the hen into "she-cock" (άλεκτρύαινα Aristoph. Nub. 646) which was no doubt met by laughter of the Athenian public in the theater of Dionysus. The episteme of the intellectual elite failed to overcome the doxa of the ordinary people. And yet it would be incorrect to say that Greek philosophy has not influenced the Greek language at all. Greek philosophy did influence the literary language and the speech of the educated part of society through school grammar, logic and rhetoric that came from it.

λευκῷ εἶναι καὶ μουσικῷ, τὸ δ' αὐτὸ ἄμφω· πολλὰ ἄρα τὸ ἕν) ἢ διαιρέσει, ὥσπερ τὸ ὅλον καὶ τὰ μέρη. ἐνταῦθα [186a] δὲ ἤδη ἠπόρουν, καὶ ὡμολόγουν τὸ ἕν πολλὰ εἶναι ὥσπερ οὐκ ἐνδεχόμενον ταὐτὸν ἕν τε καὶ πολλὰ εἶναι, μὴ τἀντικείμενα δέ· ἔστι γὰρ τὸ ἕν καὶ δυνάμει καὶ ἐντελεχεία.

[&]quot;Even the more recent of the ancient thinkers were in a bother lest the same thing should turn out in their hands both one and many. So, some, like Lycophron, were led to omit 'is', others to change the mode of expression and say 'the man has been whitened' instead of 'is white', and 'walks' instead of 'is walking', for fear that if they added the word 'is' they should be making the one to *be* many — as if 'one' and 'is' were always used in one and the same way. What is may be many either in definition (for example to be white is one thing, to be musical another, yet the same thing may be both, so the one is many) or by division, as the whole and its parts. On this point, indeed, they were already getting into difficulties and admitted that the one was many — as if there was any difficulty about the same thing being both one and many, provided that these are not opposites; for what is one may be either potentially one or actually one". (tr. Hardie and Gaye).

¹⁶ In Modern Greek μεταρρύθμιση is a standard word for "reform".

Some important philosophical terms and neologisms (often semantical, not lexical innovations), such as $\kappa \delta \sigma \mu o \zeta$ in the meaning of "world, Universe"¹⁷, $\delta \lambda \eta$ in the abstract sense of "material, matter" (due to Aristotle), $\sigma \tau o \chi \epsilon \tilde{a} \alpha$ in the sense of "elements" (beginning with Plato *Tim.* 48b, Eudem. *ap.* Simpl. *Phys.* 7.13), and other words made their way into the common vocabulary of educated strata of society and literary language. The word $\phi t \lambda \sigma \sigma o \phi \tilde{a} \alpha$ such (with its cognates $\phi t \lambda \delta \sigma \sigma \phi \rho \zeta$, $\phi t \lambda \sigma \sigma \phi \epsilon \tilde{v}$) in its new properly 'philosophical' sense is a notable case at point. Riedweg (2012) rightly defends the reliability of the ancient tradition on its Pythagorean origin, contrary to Burkert's hypercritical approach. However, Pythagoras' innovation was semantical rather than lexical: for details see Lebedev 2022², 690–691 with objections to Moore's (2020) unfortunate hypothesis which can be refuted by Heraclitus' fragment 133Leb/B35 alone.

Aristotle's attempt in his ethical treatises to "give names" to "nameless" ($\dot{\alpha}v\dot{\omega}vu\mu\alpha$) moral qualities that do not have established names in ordinary language stands apart. The theoretical basis of this name-giving procedure for Aristotle was his attempt to reform the traditional binary taxonomy of moral qualities (brave — coward) and to replace it with a new triadic scheme, consisting of one virtue and two opposite vices: from a simple opposite of the coward «brave» becomes a middleman between the coward and the reckless. Aristotle "discovers" these unnamed qualities when he replaces the traditional (that is, doxastic) binary system "virtue — vice" with the ternary one, which, in his opinion, corresponds to nature. Aristotle feels himself like a "name-giver" (*onomatothetes*) who ameliorates and makes more perfect the existing language¹⁸:

Eth. Nic. II 7. 1108 a 16 εἰσὶ μέν οὖν καὶ τούτων τὰ πλείω ἀνώνυμα, πειρατέον δ', ὥσπερ καὶ ἐπὶ τῶν ἄλλων, αὐτοὺς ὀνοματοποιεῖν σαφηνείας ἕνεκα καὶ τοῦ εὐπαρακολουθήτου. "Most

¹⁷ Xenophon in *Memorabilia* already uses the word κόσμος in the new sense, but elucidates that this is a technical philosophical term: Xen. *Mem.* 1.1.11 οὐδεἰς δὲ πώποτε Σωκράτους οὐδὲν ἀσεβὲς οὐδὲ ἀνόσιον οὕτε πράττοντος εἶδεν οὕτε λέγοντος ἤκουσεν. οὐδὲ γὰρ περὶ τῆς τῶν πάντων φύσεως, ἦπερ τῶν ἄλλων οἱ πλεῖστοι, διελέγετο σκοπῶν ὅπως ὁ καλούμενος ὑπὸ τῶν σοφιστῶν κόσμος ἔχει καὶ τίσιν ἀνάγκαις ἕκαστα γίγνεται τῶν οὐρανίων, ἀλλὰ καὶ τοὺς φροντίζοντας τὰ τοιαῦτα μωραίνοντας ἀπεδείκνυε.

¹⁸ Important observations on this topic are made by Maria Chriti in the paper "Aristotle as a Name-giver: The Cognitive Aspect of his Theory and Practice".

of these (moral qualities) are also nameless, but, as in other cases, one must try to create names for them ($\dot{o}vo\mu\alpha\tau\sigma\pi\sigma\iota\epsilon$) for the sake of clarity and ease of understanding".

Thus, contrary to Wittgenstein's dictum "philosophy leaves everything as it is"¹⁹, the Greek philosophers in the field of linguistics and philosophy of language set themselves not only descriptive, but also critical and reformatory tasks. In the same way, in political philosophy, they did not confine themselves to the description of existing constitutions, but always proposed their own project of an ideal or "correct" state, and in ethics they similarly were engaged not so much in describing empirically human characters, as in constructing a perfect moral personality capable to realize the "nature" of man by living according to nature, i. e. the objective order of things.

Ancient theories of "natural language" are analogous to the theories of "natural law" and to the projects of the ideal state in political philosophy. In both cases, the fundamental concept of the sought-for norm or standard, on the basis of which it is proposed to reform the existing imperfect language forms, is usually "nature" ($\varphi \dot{\sigma} \iota \varsigma$). Only in Eleatics, due to their anti-naturalistic idealist metaphysics, such a standard is not "nature", but "being" ($\epsilon i \nu \alpha \iota$) or "what is" ($\tau \dot{o} \, \delta \nu$) identified with "mind" or "consciousness" ($\nu o \epsilon \bar{\nu}$, $\nu \dot{o} \varsigma \zeta$). In the poem of Parmenides $\varphi \dot{\upsilon} \iota \varsigma \zeta$ is demonstratively not even mentioned in the "Way of Truth", but appears only in *Doxa*, in the "deceptive" words about "what-is-not", i.e., the world of generation and destruction: this is undoubtedly a polemical message addressed to the Ionians and Heraclitus who is directly attacked in the passage about "two-headed" philosophers (B 6, 4–9 DK).

Considering that the world of "doxa" in archaic philosophers usually corresponds to the "human knowledge", and the world of "truth" (*aletheia*) or "nature" (*physis* in Heraclitus) to the "divine knowledge", and also taking into account the constant claims of archaic philosophers to divine or (for those who are a bit more modest) to semi-divine status, we can conclude that the ideal language that the Greek philosophers were looking for was the "language of the gods". Not without reason, in Parmenides the "Way of Truth" reveals how the true reality is perceived by the

¹⁹ "Philosophy may in no way interfere with the actual use of language; it can in the end only describe it. It cannot give it any foundation either; it leaves everything as it is, and no mathematical discovery can advance it". Ludwig Wittgenstein, *Philosophical Investigations*. I. 124.

divine mind, and not by the human mind that cannot transcend subjective *doxa* and false polarity. Heraclitus' cosmic Logos is a kind of ideal language spoken by the cosmic god; it is the standard for moral, political, religious and linguistic reform, is $\dot{c}\dot{\omega}v\,\dot{\alpha}\dot{c}i$ "being forever and ever", and the truth it conveys to the deaf humanity is very simple: all is one. The idea that, besides the imperfect human language, there exists a secret and superior "language of the gods" unknown to men, is already attested in Homer.²⁰ Greek poets claimed that this language of the gods was known only to them. But the Greek philosophers — quite in the spirit of the "ancient quarrel" between philosophy and poetry — have proposed their own new versions of this ancient idea.

In order to avoid confusion, it should be emphasized that in Greek philosophers the meaning of "natural" or "conforming to nature" language is different from the modern linguistic term "natural language", i.e., traditional spoken language as opposed to artificial language. Moreover, sometimes it has exactly the opposite meaning when it is contrasted with the ordinary spoken language, as in Heraclitus. In the Derveni papyrus (Prodicus) "natural names" (κατὰ φύσιν) refer to the original simple and clear language of the primitive people, in which names corresponded to real natural objects like the sun, before it was spoiled by the poets and distorted by ignorant crowd. The name of Zeus originally meant "air" and cosmogonic vortex (Δ ía from δ íνη), but "those who cannot understand correctly" (e. g. priests and diviners) substituted for this natural meaning a fantastic image of anthropomorphic god (for details see Lebedev 2019).

II. HERACLITUS' EXPERIMENTS WITH LANGUAGE, GRAMMAR AND STYLE

1. Ancient critics on the "obscurity" and "ambiguity" of Heraclitus' style. Oracular features.

Heraclitus already in antiquity earned the nickname "The Obscure" ($\dot{\delta}$ Σκωτεινός, Obscurus) for the "want of clarity, uncertainty" ($\dot{\alpha}$ σάφεια) of his style. Since there were several writers named Heraclitus, the philosopher Heraclitus of Ephesus was often quoted as "Heraclitus the Obscure", that is, the nickname "The Obscure" $\dot{\delta}$ Σκωτεινός was used as a distinctive *signum*. The ancient

²⁰ On this topic see, e. g., Watkins (1970), Bader (2007), Indian parallels that point to the Indo-European roots of the idea: Grinzer (1998).

critics attributed the "obscurity" and the ambiguity of Heraclitus to two main factors: 1) the metaphorical use of names, allegorizing, imitation of Apollo's oracles; 2) grammatical irregularities, especially asyndeton (lack of conjunctions and connective words) and to *hyperbaton*, the irregular word-order and syntactic ambiguity. Both explanations are correct: the obscurity of Heraclitus's style is explained by the combination of the elaborate system of metaphorical codes with the syntactic polysemy and asyndeton. Heraclitus's intentional obscurity was aptly described by both ancient and modern critics as "oracular", he was compared to Apollo Loxias or to a mantis²¹. Heraclitus himself points to the oracular roots and features of his style in Fr. 27Leb/B93 about the "Delphic Lord", who "neither speaks out, nor conceals, but gives signs" (oute λέγει οὕτε κρύπτει, ἀλλὰ σημαίνει), as well as in the parable of Sibyl (fr.160Leb/B92). If our reconstruction of the incipit of Heraclitus' book is correct, that is, if fragment 2Leb/B1 DK was preceded by the fragment 1Leb/B 50 containing the prophetic formula οὐκ ἐμὸς ὁ λόγος 'it is not my word...' (with the implied 'but the word of God'), Heraclitus from the very start makes it clear that his *logos* is the voice of God, and he speaks as a prophet of Apollo. Therefore, there is nothing surprising in the fact that he formulates his main metaphysical thesis, the law of the identity of opposites, in the language of Apollonian symbolism of the bow and the lyre (29Leb/B51). It is very likely that the parable about Apollo and Sibyl alludes to the "prophetic mouth" of Heraclitus himself and is autobiographical (160Leb/B 92). In Lucian's Auction of Lives (Luc. Vit. Auct. 14), an annoved buyer, upon listening to the "obscure" speech of Heraclitus on the identity and permanent cyclical change of opposites, exclaims: "Hey you, do you speak in puzzles or compose riddles? Just like Loxias, you say nothing clearly!" ("Ωσπερ Λοξίας οὐδὲν ἀποσαφεῖς). Quite independently of Lucian, Plutarch in De garrulitate 511AB compares Heraclitus'

silent symbolic advice to the Ephesians (the story about *kykeon* as a symbol of frugal diet) with the brachylogy of the oracles of Apollo *Loxias*. The epiclesis of Apollo *Loxias* was intricately bound with his oracular function, pointing to the "crooked", i. e. "indirect, elusive" character of his responses; Λοξίου μαντέυματα is a stock phrase in Aeschylus and Euripides. But for Heraclitus himself, as for

²¹ Guthrie, HGPh, I, 414: "it is no metaphor to call his style oracular". Hölscher (1968).

Aeschylus (Ch. 559), Loxias was a μάντις ἀψευδής, an infallible soothsayer.

2. Syntactic polysemy. Asyndeton.

In Heraclitus's times the scriptio continua, i. e. writing without separation of words, was a common practice; punctuation marks (e.g. a dot) were used only occasionally. Scriptio continua was used in inscriptions, in private letters, and in papyri containing literary and philosophical texts. Therefore, while reading a text, readers had to «divide» it into separate words or to apply "interpunction" (διάστιξις): διαιρέω, διαίρεσις was, inter alia, a grammatical term for distinguishing words in reading, for punctuation (LSJ, s. v. διαιρέω VI). This process was partly facilitated by numerous connective particles and conjunctions (σύνδεσμοι). Note that the ancients did not distinguish conjunctions and "particles" like modern grammarians, both are covered by a general term syndesmoi "connectors". The lack or irregular use of such connective words (the so-called *asyndeton*, lack of connective words) could result in difficulties of reading and understanding. Aristotle in Rhetoric specifies two main causes of the lack of clarity: asyndeton and irregular word order that results in syntactic ambiguity. The latter was also termed *hyperbaton* by 5th century sophists; later it became a standard rhetorical and grammatical term for irregular word order in Hellenistic and Roman times (Devine, Stephens 2000). Aristotle only once speaks of σ ύνθεσις ὀνομάτων ὑπερβατή in *Rhet*. 1435a37. As an example, illustrating this rule, he quotes from the beginning of Heraclitus' book a part of fr. 2Leb/B1DK (Arist. Rhet. 1407b11-18):

ὅλως δὲ δεῖ εὐανάγνωστον εἶναι τὸ γεγραμμένον καὶ εὕφραστον ἔστιν δὲ τὸ αὐτό ὅπερ οἱ πολλοὶ σύνδεσμοι <ἔχουσιν, οἱ δ' ὀλίγοι> οὐκ ἔχουσιν οὐδ' ἂ μὴ ῥάιδιον διαστίξαι ὥσπερ τὰ Ἡρακλείτου. τὰ γὰρ Ἡρακλείτου διαστίξαι ἔργον διὰ τὸ ἄδηλον εἶναι, ποτέρωι πρόσκειται, τῶι ὕστερον ἢ τῶι πρότερον, οἶον ἐν τῆι ἀρχῆι αὐτοῦ τοῦ συγγράμματος φησὶ γάρ " τοῦ λόγου τοῦδ' ἐόντος ἀεὶ ἀξύνετοι ἄνθρωποι γίγνονται », ἄδηλον γὰρ τὸ ἀεὶ πρὸς ποτέρωι <δεῖ> διαστίξαι. "It is a general rule that a written composition should be easy to read and therefore easy to deliver. Such qualities possess the texts with many connecting words, but not the texts with few connecting words, nor the texts which is hard to punctuate, like the writings of Heraclitus. To punctuate Heraclitus is no easy task, because we often cannot tell whether a particular word belongs to what precedes or what follows it. Thus, at the outset of his treatise he says, 'Though this logos is always men fail to understand it', where it is not clear to which of the two clauses the word 'always' belongs" (tr. Roberts with alterations).

The author of the Derveni papyrus, whom we identify with Prodicus of Ceos, writing *circa* 430–420 B.C., uses for the irregular word order the term ὑπερβατόν that Plato ascribes to Prodicus' teacher Protagoras in Prot. 339a sq. Υπερβατόν occurs in PDerv twice: in col. IV,10 in the authorial comments on Heraclitus' quotation, and in col.VIII, 6 applied to the verses of Orpheus ($\check{\epsilon}\pi\eta$ ύπερβατά ἐόντα λανθάνει). În column IV the Derveni author compares the "enigmatic" style of Orpheus with that of Heraclitus and explains it by the common features, the use of "peculiar words" (τὰ ἴδια ὀνόματα, opp. κοινὰ ὀνόματα), i. e. metaphors and allegorical divine names, and the use of *hyperbaton* intended to conceal the true meaning of the text from ignorant hoi polloi. An example of ύπερβατόν indicated in col. VIII, is the syntactically ambiguous position of the word aidoiov. To use Aristotle's phraseology "it is not clear whether this word belongs to what precedes or to what follows it" (ἄδηλον...ποτέρωι πρόσκειται): if it belongs to the preceding clause, following the words δαίμονα κυδρόν, it is a second epithet of Protogonos meaning "revered". If it goes with what follows, aidoiov becomes a substantive meaning "penis", and the resulting text reads αίδοῖον ...κατέπινεν "(Zeus) swallowed penis". In fact, it is clear that only the first reading is natural and correct, and Prodicus most probably knew this. But he pretended to prefer the second, far-fetched reading in order to create an obscene joke intended as insult of religious conservatives: the name of the mantis, who prosecuted his teacher Anaxagoras for his "impious" cosmogony, was Diopeithes "One who obeys Zeus". For details see Lebedev 2019: 530–531, especially pp. 548–549. The Hellenistic rhetorician Demetrius, the author of the treatise On style, explained the obscurity of Heraclitus by the scarcity of connective words, asyndeton (Demetrius, De elocutione, 191 sq.): μάλιστα δε σαφη γρή την λέξιν είναι. το δε σαφες έν πλείοσιν. πρῶτα μεν έν τοῖς κυρίοις, ἕπειτα έν τοῖς συνδεδεμένοις τὸ δὲ ἀσύνδετον καὶ διαλελυμένον όλον ἀσαφὲς πῶν ἄδηλος γὰρ ἡ ἑκάστου κώλου ἀργὴ διὰ τὴν λύσιν, ὥσπερ τὰ Ἡρακλείτου καὶ γὰρ ταῦτα σκοτεινὰ ποιεῖ τὸ πλεῖστον ἡ λύσις. The style should be first of all clear. And clarity depends on several factors. First, on the use of words in their proper meaning. Second, on the use of connective words, whereas the lack of connective words and the looseness make any text completely unclear, since, due to the looseness, it is unclear where is the beginning of each sentence, as in the writings of Heraclitus: it is

looseness (lysis) that for the most part makes them obscure'. Demetrius, who mainly follows the Peripatetic rhetorical tradition, probably depends on Aristotle's passage quoted above, but not completely. Aristotle puts an emphasis on syntactic polysemy, Demetrius on ἀσύνδετον, by which is meant the scarcity of conjunctions and particles. Aristotle quotes Heraclitus as an example of how one should not write. Demetrius, in the following context, notes the positive qualities of asyndeton in certain cases. According to Demetrius, the style, not overloaded with conjunctions and particles, is closer to the vivid oral speech, and the style overloaded with connective words, is closer to written text (γραφική λέξις). Therefore the "loose" speech, characterized by asyndeton, is more suitable for actor's dialogue (ὑποκριτική) and for debate in forensic oratory (ἐναγώνιος), whereas the syndedemenon is more suitable for writing. The syntactically strict style of literary composition is dispassionate and detached, whereas the "loose" style (διαλελυμένη) is full of passion²². These subtle observations of Demetrius are applicable to the style of Heraclitus that displays many "oral" features. The style of Heraclitus is polemical (ἐναγώνιος) and passionate, often it comes closer to the vivid oral speech (with emphatic personal $\dot{\epsilon}\gamma\dot{\omega}$ T) and may be contrasted with the factual, emotionless and somewhat repetitious style of the Ionian scientific prose, best examples of which are provided by Anaxagoras' fragments: in these texts έγώ 'I' is strictly avoided. Hence the folkloric elements in Heraclitus' texts (on these see below for more detail, paragraph 8), which is hard to imagine in a traditional Ionian treatise Περὶ φύσεως.

Theon of Alexandria (1/2 century AD) in his Προγυμνάσματα also cites Heraclitus' writings as a classic example of "lack of clarity" (ἀσάφεια), but unlike Demetrius, he focuses not on *asyndeton*, but on syntactic ambiguity (ἀμφιβολία) and difficulties in "dividing" Heraclitus' text (διαίρεσις). It is also worth noticing that, unlike Theon, he does not associate Heraclitus' obscurity with *hyperbaton*, but only with *amphibolia*. He warns against the excessive use of *hyperbaton* (as in Thucydides), but adds that he does not reject *hyperbaton* altogether since it can give to the style diversity (*poikilia*) and originality (82.21–24).The meaning of the

²² Demetrius, *De elocutione*, 193–194. Examples cited by Demetrius: Menander is performed on stage, whereas Philemon is read, since Menander's style abounds in asyndeton typical for oral speech, whereas Philemon' style is more literary.

term "division" in Theon is to some extent similar to the meaning of Aristotle's term "interpunction" διάστιξις, properly "dividing by marks or dots, στιγμαί". But the examples he cites relate not only to the syntactic interpunction, as in the Aristotle's quotation from Heraclitus' fr. 2Leb/B1 (here only the syntactic position of the word act is ambiguous, but not the word as such), but also to the *isolation* from the *scriptio continua* of separate words, which may be termed *lexical diastixis* as distinguished from *syntactic diastixis*.

Theon. Alex. Progymnasmata, p. 81.30-82.19 (p. 43-44 Patillon): Άσαφῆ δὲ τὴν ἑρμηνείαν ποιεῖ καὶ ἡ λεγομένη ἀμφιβολία πρὸς τῶν διαλεκτικῶν, παρὰ τὴν κοινὴν τοῦ ἀδιαιρέτου τε καὶ διηρημένου, ὡς έν τῷ ΑΥΛΗΤΡΙΣ πεσοῦσα δημοσία ἔστω· ἕν μὲν γάρ τί ἐστι τὸ ὑφ' εν και άδιαίρετον, αύλητρις έστω πεσούσα δημοσία, έτερον δε το διησημένον, ΑΥΛΗ ΤΡΙΣ πεσοῦσα ἔστω δημοσία. ἔτι δὲ καὶ ὅταν τι μόριον ἄδηλον ἦ, μετὰ τίνος συντέτακται, οἶον ΟΥΚΕΝΤΑΥΡΟΙΣ ὁ Ηρακλῆς μάχεται σημαίνει γὰρ δύο, ΟΥ ΚΕΝΤΑΥΡΟΙΣ ὁ Ήρακλῆς μάγεται, καὶ ΟΥΚ ΕΝ ΤΑΥΡΟΙΣ ὁ Ἡρακλῆς μάχεται. όμοίως δε άσαφης γίνεται φράσις και όταν τι σημαινον μόριον άδηλον ή, μετὰ τίνος συντέτακται, οἶον "οἱ δὲ καὶ ἀγνύμενοί περ έπ' αὐτῷ ἡδὺ γέλασσαν" [Hom.II.2.270]. ἀμφίβολον γὰρ πότερον ἐπὶ τῶ Θερσίτη ἀχνύμενοι, ὅπερ ἐστὶ ψεῦδος, ἢ ἐπὶ τῆ καθολκῆ τῶν νεῶν καὶ πάλιν, "δῆμον Ἐρεχθῆος μεγαλήτορος, ὄν ποτ' Ἀθήνη θρέψε Διὸς θυγάτηρ, τέκε δὲ ζείδωρος ἄρουρα" [Hom.Il.2.547-548]. πότερον τὸν δῆμον ἢ τὸν Ἐρεχθέα φησὶν ὑπὸ τῆς Ἀθηνᾶς τραφηναι και τεκείν την γην. παρά ταύτην δε την αμφιβολίαν τα Ήρακλείτου τοῦ φιλοσόφου βιβλία σκοτεινὰ γέγονε κατακόρως αὐτῆι χρησαμένου ἤτοι ἐξεπίτηδες, ἢ καὶ δι ἀγνοιαν. 'The lack of clarity is also produced by the ambiguity (amphibolia), as it is called by dialecticians, due to the fact that the text can be read both separately and inseparably. For example, in the text $AYAHTPI\Sigma$ πεσοῦσα δημοσία ἔστω one way of reading the text is to take AYΛΗΤΡΙΣ as one and inseparable word: "a flute-girl (αὐλητρίς) fallen should become public". Another way of reading is to take AYAH TPIE as two separate words: "a court thrice fallen should become public". Uncertainty also arises when it is not clear to which word a part of a word belongs, such as in "OYKENTAYPOIΣ ό Ήρακλῆς μάχεται". The text has two meanings: "Heracles does not fight with centaurs (οὐ κενταύροις)" and "Heracles does not fight among the Tauri (οὐκ ἐν Ταύροις)". Similarly, the expression becomes uncertain when it is not clear with what some significant part is construed, as in the verse "And they, though distressed by this, laughed sweetly". It is ambiguous and uncertain whether they

were distressed by Thersites (which is not true), or by the launching of ships into the sea. One more example: "The great-hearted people (demos) of Erechtheus, who was once nourished by Athena and born by life-giving Earth". Who was born by Earth and nourished by Athena, the people (demos) or Erechtheus? It is due to this ambiguity that the writings of the philosopher Heraclitus are obscure, since he used it immoderately, either deliberately or by ignorance'.

Theon's testimony is remarkable in that it contains a textual reminiscence of Heraclitus' fragment 2Leb/B 1, namely, διαιρέων (scil. ἕπη κα ἕργα) "dividing words and deeds". This indicates that Theon's source correctly understood the grammatical logos analogy at the beginning of Heraclitus' treatise. Theon's testimony is important not only from the point of view of style, but also philosophically: it refers to the isolating of meaningful lexemes from an undivided text, that is, exactly as in Plato's anonymous quotation from Heraclitus in Cratylus (fr. Probabilia 3 Leb.), it refers to the true and false readings of the same logos, depending on its correct ("by nature") or incorrect "division" ($\delta \iota \alpha (\rho \epsilon \sigma \iota c)^{23}$. The examples of ambiguous lexical diastixis cited by Theon recall the story of Euthycles who accused Heraclitus of impiety for setting up an altar to himself on the agora and deifying himself in the inscription HPAKAEIT Ω IE Φ E Σ I Ω I²⁴. Heraclitus in his apology points out to the "ignorant" hoi polloi that they are illiterate and cannot read correctly, for the inscription should be read as HPAKAEI T Ω I $E\Phi E\Sigma I\Omega I$ "To Heracles the Ephesian", and not HPAKAEIT ΩI $E\Phi E\Sigma I\Omega I$ "To Heraclitus the Ephesian". Although the *Epistles* of Pseudo-Heraclitus have been commonly treated with contempt and dismissed as a worthless source for the reconstruction or interpretation of Heraclitus' syngramma in modern Heraclitean studies, the author of Epistle IV (letter to Hermodorus) understood better than most modern critics the meaning of the words διαιρέων κατά φύσιν (scil. ἕπη καὶ ἔργα) "dividing according to nature (scil. words and deeds") in the self-description of Heraclitus' philosophical method in fr.2Leb/B1, in other words he or his source had a clear understanding of the grammatical (alphabet) analogy in Heraclitus' theory of the universal logos. Note that the correct lexical diastixis in this anecdote transforms a mortal (Heraclitus) into immortal (Heracles). This is again based on a genuine idea of Heraclitus

²³ Athen. vol. 2,2, p. 63.30 οὐδὲ κατὰ διαίρεσιν ἀναγνωστέον [i. e., ὑπὸ πυθμένες], ὡς ὁ Θρὰξ Διονύσιος, ἀλλὰ κατὰ σύνθετον ὑποπυθμένες.

²⁴ Ps. Heraclit. *Epist.* IV, 2,18. For details see our commentary to fr. 2L/B1.

found in the commonly neglected *verbatim* quotation from Heraclitus in Ionian dialect: "Av $\theta \rho \omega \pi \sigma i \theta \varepsilon o i \delta v \theta \rho \omega \pi \sigma i \lambda \delta \gamma \sigma \varsigma$ $\gamma \partial \rho \dot{\omega} \tau \delta \varsigma$ "Men are gods, gods are men, for the logos is the same", i. e. the conventional names "men" and "gods" are just letters of syllables MENGODS or IMMORTALSMORTALS which, in turn, are fragments of the "shared" universal logos: Clem. Alex. *Paedag.* III,1,5 (I, p.325, 24 St.) = Heraclit. fr. 154 Leb., incorrect text in Marcovich fr. 47 (c).

Instances of syntactic ambiguity in the fragments of Heraclitus

fr. 1Leb/B50 ὁμολογεῖν σοφόν ἐστιν or ὁμολογεῖν σοφόν ἐστιν έν 'It is wise to agree' or 'one should agree: there is only one wise being'?

fr. 2Leb/B1 ἐόντος ἀεί or ἀεὶ γίνονται. 'being always' or 'always fail to understand'?

fr. 29Leb/B51 $\delta_{1\alpha}\phi_{\epsilon}\rho_{\mu}\phi_{\nu}$ is a variance with itself' or 'is in agreement with itself?

fr. 67(a) Leb/cf. B12 ἀναθυμιώμεναι νοτεραί or νοτεραὶ ἀεὶ γ ίνονται. 'the souls being evaporated wet' or 'always become wet'?

fr. 67(b) Leb/B12 ποταμοῖσι τοῖσι αὐτοῖσι or τοῖσι αὐτοῖσι $\dot{\epsilon}\mu\beta$ αίνουσι. 'On those who enter into the same rivers' or 'on the same /bathers/ who enter rivers'?

fr. 78Leb/B20 γενόμενοι, ζώειν ἐθέλουσι μόρους τ'ἔχειν or γενόμενοι ζώειν, ἐθέλουσι μόρους τ'ἔχειν. 'Once born, they want to live and to die' or 'once born to live, they are prone to die'?

fr. 100Leb/B112 ποιεῖν κατὰ φύσιν or κατὰ φύσιν ἐπαΐοντας. 'To act according to nature, understanding' or 'to act, inderstanding according to nature'?

fr. 144Leb/B5 καθαίρονται αἴματι or αἵματι μιαινόμενοι. 'those who are polluted, clean themselves by blood' or 'those who are polluted by blood, clean themselves...'?

fr. 157Leb/B18 ἐἀν μὴ ἕλπηται ἀνέλπιστον or ἀνέλπιστον οὐκ ἐξευρήσει. 'if you do not hope for the hopeless' or 'if you do not hope, you will not find what is hopeless'?

Ambiguity of oblique cases πάντων and πασι: "all men" or "all things"?

fr. 2Leb/B1 γινομένων γὰρ πάντων κτλ. 'Although all things happen according to this logos' or 'although all men encounter this logos'?

fr. 6Leb/B113 ξυνόν ἐστι πᾶσι τὸ φρονεῖν. 'intelligence is common to all men' or 'to all things' (panpsychism)?

fr. 32Leb/B53 πόλεμος πάντων μèν πατήρ κτλ. 'War is the father of all men' or 'of all things?'

fr. 37L/B30 κόσμον τόνδε τὸν αὐτόν ἀπάντων 'This cosmos, the same for all things' or 'one and the same for all living beings' (i.e., gods and men)?'

fr. 131Leb/B114 ἰσχυρίζεσθαι χρὴ τῶι ξυνῶι πάντων 'should rely on what is common to all things' or 'on what is shared by all living beings?'

fr. 139Leb/B108 σοφόν ἐστι πάντων κεχωρισμένον 'the wise being (i.e., god) is set apart from all men' (non-anthropomorphic) or is 'distinct from all things'(transcendental)?

3. The omission of the conjunction καί 'and' between the opposites.

Asyndeton in Heraclitus is primarily exemplified by the absence or omission of the conjunction $\kappa \alpha i$ "and". A striking and unique feature of Heraclitus' style is that in the authentic fragments in the Ionian dialect relating to the unity or harmony of opposites Heraclitus regularly omits the conjunction $\kappa \alpha i$ "and" between the opposites ²⁵:

fr. 43 Leb/ 67 DK ὁ θεὸς ἡμέρη εὐφρόνη, χειμὼν θέρος, πόλεμος εἰρήνη, κόρος χρησμοσύνη "God is day night, winter summer, war peace, abundance scarcity".

fr. 153 Leb/ 62 DK ἀθάνατοι θνητοί, θνητοὶ ἀθάνατοι "immortals mortals, mortals immortals'.

106Leb/B10 συμφερόμνενον διαφερόμενον, συνᾶιδον διᾶιδον "agreeing with itself, being at variance with itsef".

In later paraphrases and inaccurate quotations $\kappa \alpha i$ has been in many cases "restored" and inserted in the original text by later authors who followed the common usage. A clear example of such

²⁵ There are two seeming exceptions to this rule: (1) ἡμέρην καὶ εὐφρόνην οὐκ ἐγίνωσκεν in fr.14Leb/B57 and (2) ἡοῦς καὶ ἐσπέρας τέρματα in fr. 55Leb/B120. But in (1) Heraclitus refers to Hesiod's ignorance and alludes to *Theogony*, 758 where Nyx and Hemera are represented as two separate goddesses meeting and greeting each other on the threshold. In the fr.43Leb/B67 that contains Heraclitus' own conception of day and night, they are conceived not as self-subsistent beings or entities, but as processes, i.e., phases of the diurnal cycle of "kindling up" and "going out" of the single common substrate, the "ever-living fire". In this doctrinal rather than polemical text the name of Day and Night are quoted without καί. In (2) ἡοῦς καὶ ἑσπέρας τέρματα refers to the equinoxes, i.e., temporal points of the same cycle. For details see Lebedev, *The cosmos as a stadium* (1985) and *Logos Geraklita*, 71–75; 368–373.

"restoration" of kai is provided by fr. 106Leb/B10 on syllapsies where it has been inserted by the author of *De mundo* in the first and fourth pair of opposites (correctly deleted in the text of Heraclitus already by Zeller), whereas the second and the third pairs (quoted above) have been preserved intact without $\kappa\alpha i$. The anthropological fragment 76Leb/B88 quoted in Plutarch's Consolatio ad Apollonium, with five kat joining the pairs of opposites of life and death, sleep and awakening, youth and old age, is not a verbatim fragment, but a colorless paraphrase in late language of the authentic fr.75Leb/B26 and its context²⁶. In other non-metaphysical and nonphysical contexts, unrelated with cosmic opposites and the theory of palintropos harmonia, especially in ethical fragments, as well as joining two clauses etc., Heraclitus seems to use kai following common usage²⁷. These instances of authentic καί joining or introducing clauses or points should be distinguished from kai-s inserted by later authors quoting a series of two or more fragments or phrases of Heraclitus²⁸. The conjunction $\kappa \alpha i$ never joins phenomenal entities, but it can join properties of the same entity (καθαρώτατον καὶ μιαρώτατον fr. 95Leb/B61) and characteristics or actions (processes) of cosmic powers and supreme god: $\tilde{\eta} v$ del kal $\check{\epsilon} \sigma \tau i$ kal έσται 37Leb/B30; απτόμενον μέτρα και αποσβεννύμενον μέτρα ibidem; διαγέεται καὶ μετρέεται 45Leb/B31; πυρός τε ἀνταμείβεται πάντα καὶ πῦρ ἀπάντων κτλ. 42Leb/B90. Note that in all these cases καί joins cyclical processes and is inserted between verbs, not between nouns²⁹. The verbs denoting opposite processes do not

²⁶ It is not worthless since it correctly paraphrases Heraclitus' thought and supplements the two pairs of opposites in 75Leb/B26 with a third one (youth and old age); therefore, it should be treated as a separate fragment, but not as a verbatim quotation.

 $^{^{27}}$ e. g., fr.103Leb/B24 θεοὶ τιμῶσι καὶ ἄνθρωποι. A genuine καί introducing additional point (example etc.) or a new clause: 78Leb/B20 ἑθέλουσι ... καὶ παῖδας καταλείπουσι κτλ.

²⁸ fr.67c Leb (B12) καὶ "ψυχαὶ δὲ ἀπὸ τῶν ὑγρῶν ἀναθυμιῶνται". fr. 68e Leb (B91) καὶ "πρόσεισι καί ἄπεισι". In fr.100 Leb (B112) καἱ belongs to Stobaeus who adds Heraclitus' apohthegm on self-control (b) to that on wisdom (a). In fr.151Leb καὶ μέντοι και is wrongly printed in bold in DK (B28b) and attributed to Heraclitus by other modern editors.

²⁹ The conjecture of Diels ἀνταμοιβή in the DK text of B90 should be ruled out for many reasons. All MSS. of Plutarch have the verb ἀνταμείβεται (once misspelled with oι). It is methodologically incorrect to "emend" a verbatim quotation in Ionian dialect on the basis of a late doxography. Heraclitus never uses πάντα with article (see above section 6), and it is

make opposites two separate things, since they have one the same subject, *hypokeimenon* in Aristotle's later terminology. Just as in the case of loan/security imagery (fr. 42Leb/B90) Heraclitus anticipates Aristotle's distinction of possibility and actuality (*dynamis/ energeia*), so in the present case Heraclitus anticipates Aristotle's triadic conceptual scheme *hypokeimenon/hexis/steresis* ("substrate/possesion/ privation") in the explanation of process (*kinesis*) and alteration (*alloiosis*).

A subtle imitation and a parody of Heraclitus' *asyndeton* we find in Lucian and Plutarch. In his *Auction of lives*, 14 Lucian puts in Heraclitus' mouth a theory of permanent cyclical change of opposites that is more authentic and accurate both in language and thought (no kaí!) than the one in Plato: kaì ἔστι τωυτὸ τέρψις ἀτερψίη, γνῶσις ἀγνωσίη, μέγα μικρόν, ἄνω κάτω περιχωρέοντα kaì ἀμειβόμενα ἐν τῆι τοῦ αἰῶνος παιδιῆι "and it is one and the same thing: pleasure non-pleasure, knowledge ignorance, big small, circling up and down in the game of Time".

Plutarch in *De exilio* 601A elaborates on the Heraclitean idea of Cosmopolis imitating his asyndeton: oَvtoi tῆς πατρίδος ἡμῶν ὅροι [εἰσί], καὶ oùδεἰς oὕτε φυγὰς ἐν τούτοις oὕτε ξένος oὕτ ἀλλοδαπός, ὅπου τὸ αὐτὸ πῦρ ὕδωρ ἀήρ, ἄρχοντες oἱ αὐτοὶ καὶ διοικηταὶ καὶ πρυτάνεις ἥλιος σελήνη φωσφόρος · οἱ αὐτοὶ νόμοι πᾶσι, ὑφ' ἐνὸς προστάγματος καὶ μιᾶς ἡγεμονίας τροπαὶ βόρειοι, τροπαὶ νότιοι, ἱσημερίαι, Πλειὰς, Ἀρκτοῦρος, ὡραι σπόρων, ὡραι φυτειῶν · Eἶς δὲ βασιλεὺς καὶ ἄρχων ...". "These are the borders of our fatherland (i. e. of the Universe), and no one in them is an exile, not a stranger, not a foreigner, where the same fire, water, air; the same rulers, governors and lords are the Sun, the Moon, Venus. The same laws for all, according to a single command and under a single authority, the northern solstices, the southern solstices, the Pleiades, Arcturus, time to sow, time to plant, one is the king and ruler ...".

In the case of the omission of the conjunction $\kappa\alpha i$ 'and' between the opposites, we are dealing not with a negligence of style or with an influence of oral speech, but with a conscious, philosophically grounded work on the reform of ordinary language. According to

inconceivable that Heraclitus would use πάντα/ἅπαντα in the same sentence with article and without it. In fr. 42A Leb. τά should be deleted as it spoils the hexameter meter, and in fr. 40Leb/B64 the correct reading is τάδε πάντα, not τὰ δὲ πάντα. The meaning ἀμοιβή "transformation" cited in LSJ, s.v. III, 2 is ill-attested and probably does not exist. For details see our commentary to fr. 42Leb/B90 DK.

Heraclitus, separate opposites are not autonomous entities, but aspects of a whole that are falsely disjoint and made into separate entities in ordinary language. According to grammatical analogy, the names of the ordinary language are not real «names» that stand for things, but letters (opposites) and syllables (pairs of opposites) of the universal natural indivisible logos. The conjunction 'and' is misleading: it seems to join the opposites like day and night etc., but this joining is based on a presupposition that they are different, otherwise there would be no reason to join them. The joining by conjunction καί corresponds to the "apparent conjunction" (ἁρμονίη φανερή, fr.30Leb/B54), the elimination of καί corresponds to the ascent from the level of phenomenal duality to noumenal unity, the level of "invisible harmony" or "joining together" (ἁρμονίη ἀφανής, ibidem). Exactly as in Parmenides, this is the level of divine knowledge, and not of human knowledge based on sense perception. The culprits to blame for this distorted and unnatural language are the poets, like Homer and Hesiod, who drank too much wine and due to the "wetness" of their souls lacked "sound mind" (vooc, φρόνησις, γνώμη). Hesiod, admired by the ignorant crowd as the teacher of Greeks who ostensibly knew more than anyone else, in fact was an unintelligent axynetos who knew nothing: he even "did not know day and night", because he thought that they are two separate beings, whereas they are one and the same thing ($\xi \sigma \tau i \gamma \dot{\alpha} \rho$ ἕv, fr.14Leb/B57). The fragment 43Leb/B 67 on the cosmic cycles is written not in the language of Homer, Hesiod and unintelligent hoi polloi (axynetoi), but in the language of nature, which is also the language of gods known only to the wise (according to fr.2Leb/B1 to Heraclitus only) in which all opposites are integrated, like letters and syllables, into one and the same "common" logos (ξυνός λόγος, λόγος ὅδε) of the divine Universe.

4. The use of connective particles.

In the authentic fragments, quoted verbatim in Ionian dialect in our best sources (such as Hippolytus, Stobaeus, Clement) not only the conjunction $\kappa\alpha$ í, but also connective particles introducing new sentences or joining two clauses, such a progressive $\delta \epsilon$, $\gamma \alpha \rho$, etc. are also often omitted in positions where they are required by the standard Greek syntax.

In the most authentic collection of fragments that we possess, quoted in the book IX of Hippolytus' *Refutation of all heresies*, 14 out of the 18 verbatim quotations from Heraclitus have no

introductory particle³⁰. In some cases Hippolytus has introduced Heraclitus' quotations by his own particles $\delta \dot{\epsilon}$, $\gamma \dot{\alpha} \rho$, $\gamma o \tilde{v} v^{31}$. Only in two Hippolytus quotations the initial $\delta \epsilon$ seems to be authentic³². The anthology of John Stobaeus is another excellent source of authentic fragments of Heraclitus in Ionian dialect, since the compiler pedantically rewrites his source without "weaving" a quote into his own text and without changing a single letter. Out of the 14 verbatim quotations in Stobaeus 11 have no connective particle, 2 have genuine $\gamma \alpha \rho$, one is uncertain³³. Clement of Alexandria is also one of the main and best sources of authentic fragments of Heraclitus in the Ionian dialect, although somewhat less accurate than Hippolytus and Stobaeus. 19 out of 25 quotations from Heraclitus in Clement have no particle, 4 have $\gamma \dot{\alpha} \rho$, one possible $\tilde{\omega} v$ (= $0 \tilde{v} v$) and one certainly unauthentic late combination και μέντοι καί³⁴. Some of the four γάρ may also have been added to original sayings without particle. Other ancient authors, citing most probably from the original syngramma of Heraclitus (Diogenes Laertius, Marcus Aurelius, Plotinus) in most cases confirm the general trend. And finally, Plutarch.

³⁰ Fr.50Leb/B56, 18Leb/B55, 20Leb/B56, 29Leb/B51, 30Leb/B54, 33Leb/B52, 40Leb/B64, 43Leb/B67, 50Leb/B60, 95Leb/B61, 111Leb/B58, 113Leb/B59, 15Leb/B53. We regard fr. 41Leb/B65 as a part of 43(a)Leb/B67 and therefore do not count it. In fr.156Leb/B63 δέ is a false conjecture of Diels (read ἐν θεοῦ δέοντι, cj.West), therefore we add it to the group without particle. ³¹ In fr.150Leb/B66 πάντα γάρ, φησί, τὸ πῦρ ἐπελθόν κτλ. the particle γάρ

³¹ In fr.150Leb/B66 πάντα γάρ, φησί, τὸ πῦρ ἐπελθόν κτλ. the particle γάρ belongs to Hippolytus, not to Heraclitus since it introduces explication of the preceding paraphrasis λέγει...γίνεσθαι. This apllies to fr. 111L/56 as well, where Hippolytus introduces by particle γοῦν a quotation that instantiates the general thesis of identity of good and evil (*contra* DK, *recte* Marcovich). For a complete list of Heraclitus quotations in Hippolytus, Clement, Stobaeus and other authors see the *index fontium* in our edition, pp.489–495.

 $[\]frac{32}{32}$ Fr. 2Leb/B50 τοῦ δὲ λόγου τοῦδε... and fr. 14L/B57 διδάσκαλος δὲ πλείστων Ήσίοδος...

³³ No connective particle: fr.6Leb/B113, 73Leb/B118, 74Leb/B117, 87Leb/B110, 88Leb/B111, 96Leb/B116, 100Leb/B112, 127Leb/B109, 131Leb/B114, 139Leb/B108. Fragment 42(A)Leb and 53Leb/B137 have authentic γάρ, fr.85Leb/B70 is uncertain (from Jamblichus).

 $^{^{34}\}gamma$ áp is found in two fragments: fr.56Leb(c) quoted in Derveni papyrus, and 56(d) Leb/B94. The Derveni quotation shows that ei δ è µή belongs to Plutarch' paraphrase, not to Heraclitus. Fr.71Leb/B9 and fr.56Leb/B3 are uncertain. For the general list of Plutarch's quotations see our *index fontium* in *Logos Geraklita*, 493–494.

Together with Hippolytus and Clement Plutarch belongs to the top three in the quantity of quotations from Heraclitus (about 20). Plutarch undoubtedly had in his library a copy of Heraclitus' book since many of his quotations are unique. He was fond of Heraclitus and he was a highly sophisticated interpreter if his thought, absolutely independent from the Stoics, his philosophical opponents. But since he gave much more attention to the elegance of his own style than Hippolytus or Clement, who quoted Heraclitus with precision as documentary evidence for apologetic purposes in their polemics against pagan philosophers, Plutarch more often rephrased the archaic Ionian wording with a style of more modern parlance; and besides, he more often used Heraclitus quotations for rhetorical embellishment and used to weave Heraclitus's words into his own text, but to do so without connective particles is not always possible. That is why in 8 out of 20 or so quotations from Heraclitus we find $\gamma \dot{\alpha} \rho$ or $\tau \epsilon$ that have been apparently added by Plutarch: it is indicative that fr. B95 on auaθía is quoted by Stobaeus in its intact form in Ionian dialect without γάρ. We may conclude that the regular use of connective particles, typical for the classical philosophical prose, is either alien to or avoided by Heraclitus.

5. Ellipsis of copula: the omission of the verb $\dot{\epsilon}\sigma\tau$ ív in certain contexts.

In the authentic quotations from Heraclitus the grammatical copula "is" is regularly omitted. Often this is accompanied by the omission of the conjunction $\kappa\alpha i$ ('and') between opposites, as well as by dropping introductory or connective particles and articles.

(a) ὁ θεὸς ἡμέρη εὐφρόνη ... God: day-night, winter-summer ...'
 (fr. 43Leb/B67);

(b) ἄνθρωπος εὐφρόνη φάος 'Man: light-night' (fr.75Leb/B26);

(c) συλλάψιες οὖλα καὶ οὐχ ' οὖλα ... 'Syllables: voiced and unvoiced letters' (fr.106, fr.108 Leb/ B10 DK);

(d) ἀοῦς καὶ ἑσπέρας τέρματα ... ἡ Ἄρκτος 'Turning posts of Dawn and Sunset: the Bear...' (fr. 55Leb/B120); (e) πυρὸς τροπαὶ πρῶτον θάλασσα ... 'Reversals of Fire: first the Sea ...' (fr.44Leb/B31);

(f) ψυχῆισι θάνατος ὕδωρ γενέσθαι ... Deaths for souls to become water ' (fr.69Leb./B36);

(g) όδὸς ἀνω κάτω μία 'The road up and down /is/ one ...' (fr.50Leb/B60);

(h) $\dot{\alpha}\rho\mu\nu\nu\eta$ $\dot{\alpha}\phi\alpha\nu\eta\varsigma$ $\phi\alpha\nu\epsilon\rho\eta\varsigma$ $\kappa\rho\epsilon(\tau\tau\omega\nu)$ 'Invisible harmony stronger than the visible' (fr.29Leb/B51);

(i) τὸ ἀντίξουν συμφέρον 'The adversary /is/ beneficial' (fr.34Leb/B8);

(k) γναφέων <ἴπου> ὁδὸς εὐθεία καὶ σκολιή 'The way of fullers' press /is/ straight and curved' (fr.113Leb/B59);

(1) ἀθάνατοι θνητοί, θνητοὶ ἀθάνατοι 'Immortals mortals, mortals immortals' (fr.153Leb/B62);

(m) κακοὶ μάρτυρες ... ὀφθαλμοί ... 'Bad witnesses ... eyes' (fr.19Leb/B107);

(n) τῶι οὖν τόξωι ὄνομα βίος 'Bow's name /is/ life' (fr.28Leb/B48);

(o) εἶς ἐμοὶ μύριοι ... 'One for me /is/ myriad' (fr.128Leb/B49);

(p) νόμος ... πείθεσθαι ένός 'The law /is/ to obey one' (fr.132Leb/B33);

(r) σωφρονεῖν ἀρετὴ μεγίστη 'Self-restrain /is/ greatest virtue ...' (fr.100a Leb/B112);

(s) any word soopatath 'The dry soul /is/ the wisest' (fr.73Leb/B118).

The ellipsis of copula (verb 'is') is typical for proverbs and gnomic sayings (Kühner, Gerth I: 40 ff.). But the omission of the verb 'is'can be explained by the influence of the gnomic and proverbial style only in ethical sayings (i), (m), (o), (p), (r), (s). In the physical fragments describing cosmic processes, such a style is quite unusual, it is full of expressive energy and renders the speed of cosmic changes: see especially examples (a) — (g). This style is characteristically Heraclitean, and it was imitated by the Hippocratic authors of *De diaeta* I, 11–24 and *De nutrimento*, IX, 98 ff. ($\tau \rho o \phi \eta$ où $\tau \rho o \phi \eta$ etc.), as well as by Plutarch in *De exilio*.

Philosophical implications of the use of the verb "to be" in Heraclitus

It is philosophically significant and hardly accidental that Heraclitus regularly omits the verb 'to be' (ἔστιν) in the contexts relating to interchanging opposites, i. e., to the phenomenal world of plurality and change. In describing the processes of the phenomenal world, Heraclitus uses either elliptical sentences that omit the copula 'is' or verbs that designate processes like ψυχρὰ θέρεται, ὑγρὰ αὐαίνεται, διαχέεται καὶ μετρέεται, σκίδνησι καὶ συνάγει, ἀμειβόμενα, πάντα χωρεῖ etc.³⁵ The word πάντα in Heraclitus is a technical metaphysical term for plurality (synonym of πολλά, contrasted with 'one', ἕν) and a physical term for all pairs of cosmic

³⁵ Fr. 48 and 51Leb. A verbatim quotation attested by the consensus of three independent sources: Plato, Hippocratic *De diaeta* and Lucian.

opposites. But separate opposites in Heraclitus' view are not selfsubsistent entities. Speaking in the 4th century philosophical language, they lack *ousia* 'substance', i.e. autonomous being. That is why Heraclitus avoids to apply to them the verb 'to be': let us not forget that the distinction of the two meanings of the verb εiuí, the distinction between the grammatical copula estimate and the "existential" ἔστι (let alone the "veridical" use), is a modern convention unknown to Greeks. On the contrary, when Heraclitus speaks of the Absolute (logos, cosmos as a whole, fire) or the supreme deity, he uses the verb "is": λόγου ἐόντος ἀεί (2L/B1), ἦν ἀεὶ καὶ ἔστι καὶ ἔσται πῦρ (37L/B30). According to fr.2Leb/B1, "this logos" is (ἐόντος), whereas "humans become", ἄνθρωποι yívovta. From this we can infer that Heraclitus was well aware of the distinction between being and becoming, contrary to the widespread opinion that it was invented by Parmenides. Moreover, both in Heraclitus and Parmenides, being corresponds to the "one", and becoming to the "many", understood as the totality of all pairs of opposites. And again, in both cases, the one is conceived as intelligible truth, perceived by the mind (vóoc), whereas plurality is understood as an illusion produced by the "deception" of the senses (ἀπάτη τῶν φανερῶν in Heraclitus fr.20L/B56). The only difference (but a very important one) is that in Parmenides the ontological absolute is motionless and immutable, while in Heraclitus it is full of energy, movement and undergoes continuous cyclic change. One cannot exclude the possibility that Heraclitus' radical monism had an impact on Parmenides' metaphysics, and that Parmenides developed as a reply to Heraclitus (whom he attacks in fr. B6DK) a system of Western idealist (mentalist) monism, polemically opposed to the Eastern naturalistic monism, and eo ipso reformed the

orthodox Pythagorean metaphysical dualism reflected in the Pythagorean table of opposites and in the fragments of Philolaus. According to an alternative scenario, which seems to us more attractive in view of the better supporting evidence, the metaphysical systems of Heraclitus and Parmenides have a common source in the 6th century Pythagorean tradition, i. e. in the philosophy of Pythagoras of Samos³⁶. In this case it was not Parme-

³⁶ In our article on Alcmaeon (Lebedev 2017–3) 244–247 we argue in detail that Aristotle ascribes the Table of opposites in *Metaphysics* A to Pythagoras personally. In our article on Epicharmus (Lebedev 2017–4) 21–25 we point to an early reflex of the Pythagorean table of opposites in Epicharmus, discuss Aristotle's report on Pythagoras' conception of matter

nides who produced a new monistic (unorthodox) version of the original dualist Pythagorean metaphysics, but it was Heraclitus who produced a new naturalized version of Pythagorean first principles based on the fundamental opposition of (intelligible) One and (sensible) Two which is reflected in: 1) Heraclitus' "triadic structure" 2+1 (see chapter 5 of our monograph "The Logos of Heraclitus", section on metaphysics); 2) the poem of the orthodox Pythagorean Parmenides, contrasting intelligible One and sensible Duality; 3) the Platonic reception of this Pythagorean doctrine, the theory of One and *Aoristos Dyas*, the first principles of the *Agrapha dogmata* of Plato cited by Aristotle in the *Alpha* of *Metaphysics*, chapter 6.

6. The use of the article.

From the above examples it becomes clear that Heraclitus rarely and irregularly uses the article. As in the case of the conjunction $\kappa\alpha i$, as well as of the introductory particles and the use of copula, the question arises whether the article(s) in a quote from Heraclitus belongs to the original or has been added by the author who quotes it or by a scribe. It seems likely that, just as in the case of the conjunction kai, Heraclitus intentionally avoids the use of article with words that refer to the phenomenal opposites subject to constant cyclic change and interconversion, since the article (that originated from a deictic pronoun) "substantivates" — both in grammatical and ontological sense — a transient phenomenon, a phase of a process inherent in a "shared" substrate rather than an autonomous and self-subsistent thing, what Aristotle later termed "this something" ($\tau \delta \varepsilon \tau \iota$). And exactly as in the case of the originally omitted kai and copula, the later authors who quoted Heraclitus, as well as Byzantine scribes, used to "supply" the "missing" articles following standard usage. An instructive example is provided by the Plutarchean Consolation to Apollonius: fr.76L/B88 ταὐτῶι τ ' ἔνι ζῶν καὶ τεθνηκὸς καὶ [τὸ] ἐγρηγορὸς καὶ

as $\check{\alpha}\lambda\lambda o$ "other" and interpret it as one of the two terms of the original binary opposition $\tau \alpha \dot{v} \tau \dot{v} - \check{\alpha} \lambda \lambda o$ or $\check{e}v - \check{\alpha} \lambda \lambda o$ which corresponds to the opposition of the soul and the body, as well as to that of god and matter. It is the source both of Parmenides' opposition of One (*Aletheia*) and Duality of *Doxa*, as well as of Plato's opposition of *One* and *Aoristos Dyas* in *Agrapha dogmata*. We side with John Dillon who recognizes the Pythagorean roots of Plato's theory of first principles in the *Agrapha dogmata*: Dillon (1996) 3.

[τδ] καθεῦδον καὶ νέον καὶ γηραιόν· τάδε γὰρ μεταπεσόντα ἐκεῖνά έστι κακεῖνα πάλν μεταπεσόντα τάδε. "In one and the same [scil. substrate or human being] is inherent the living and the dead, the awaken and the sleeping, the young and the old, for these, having dramatically changed, are those, and those, having again dramatically changed, are these". Most editors and commentators with good reason delete the two articles erroneously "supplied" by scribes. This comes from a brilliant Plutarchean passage full of compressed reminiscences of authentic ideas and metaphors of Heraclitus which contains much more than is recognized by Diels-Kranz and those editors who follow them. However, the language of fr. B88 DK and its context is the same Atticist Greek of the Imperial times as the language of its context. Contrast this language with the archaic Ionian prose of 75Leb/B26 which it actually paraphrases. The authentic fragment does not speak of abstract neutra like to έγρηγορός καὶ τὸ καθεῦδον, instead it speaks about ἄνθρω π ος who is now εὕδων, now ἐγρηγορώς, now ζῶν, now τεθνεώς. In the authentic fragments Heraclitus uses archaic and poetic words εὕδων, τεθνεώς (or νέκυες), but never standard late forms καθεύδων. τεθνηκός. Another indication of a paraphrase is the verb $\dot{\epsilon}$ στί applied to the changing opposites, which is impossible in authentic text of Heraclitus. These two facts are sufficient to demonstrate that B88 DK is a paraphrase (generally a correct one), not a verbatim quotation. Another example of a similar "restoration" of articles is provided by the comparison of Heraclitus original συμφερόμενον διαφερόμενον (106Leb/B10, no articles!) with Aristotle's imprecise quotation (or rather summary of several "fragments") in Eudemian \hat{E} thics 1155b4 (fr. 34Leb/B8) τὸ ἀντίξουν συμφέρον καὶ ἐκ τῶν διαφερόντων καλλίστην άρμονίαν. In the fragments, quoted in the Ionian dialect and relating to the opposites, articles are regularly omitted: ψυχρά θέρεται θερμά ψύχεται κτλ. (46Leb/B126); άθάνατοι θνητοί, θνητοὶ ἀθάνατοι, ζῶντες.. (153Leb/B63); οὖλα καὶ οὐχ οὖλα κτλ. (106Leb/B10). ζῶντες... τεθνεῶτες

While Heraclitus regularly omits article when he speaks of phenomenal opposites and "parts" of the world, he does use article (or the demonstrative pronoun τόνδε) when it comes to the Whole, to what is common to all (τῶι ξυνῶι πάντων, divine law), to eternal and divine beings, such as *logos* (1L/B50, 2L/B1, 7L/B2), *cosmos* (37L/B30, 38L/B14) and divine fire: in fr.150L/B66 we have τὸ πῦρ, but πάντα without an article; Heraclitus' word for the new philosophical god, who governs the whole Universe, is "τὸ Σοφόν

"The Wise Being" (fr.140L/B41, 141L/B32)³⁷. In Plato's *Theaetetus* 201d Socrates expounds the so-called "dream theory" which he allegedly "heard from someone" in a dream. At the core of this theory is the analogy between the relation of the simplest elements of everything to the Universe, on the one hand, and the relation of the letters of the alphabet ($\sigma \tau \sigma \tau \tau \epsilon \alpha$), that have no meaning, to a meaningful logos. Since the analogy between logos and the Universe (which we call the grammatical or the alphabet analogy), especially combined with the image of «dreamers», is attested only in the authentic fragments of Heraclitus (1L/B50; 2L/B1; 106L/B10 where $\sigma \upsilon \lambda \lambda \dot{\alpha} \psi \iota \varsigma$ is Ionian equivalent of the Attic $\sigma \upsilon \lambda \lambda \alpha \beta \alpha i$ "syllables" and οὖλα καὶ οὐχ οὖλα means "voiced and unvoiced letters", i. e. vowels and consonants) and since the paradoxical thesis "logos means Universe" is attested in Plato's Cratylus in a Heraclitizing context (408c2 = Heraclit. fr. prob. 3 Leb.), we identify the author of the "dream theory" with Heraclitus rather with Antisthenes (a conjecture unsupported by clear evidence), and include the passage from Cratylus in our edition of Heraclitus' fragment in a special section Probabilia (fr.4), i.e., fragments quoted without Heraclitus' name, although the attribution seems virtually certain. The author of the dream theory insists that the simplest "letters", which are perceived by the senses, but cannot be "known", have only "name", but lack logos. It is only the "combination of names" ($\sigma \upsilon \mu \pi \lambda \sigma \kappa \eta$ ovo $\mu \dot{\sigma} \tau \omega v$) that produces logos.

 $^{^{37}}$ The use of $\sigma o\phi \dot{o} v$ without article in fr. 1L/B50 and 139/B108 can be explained by the intentional syntactic polysemy. In these fragments Heraclitus actually introduces a new philosophical god within his project of monotheistic reform of Greek religion. To protect himself from possible charges of impiety (asebeia) or "introducing new divinities" (καινά διαμόνια εἰσάγειν), he makes the syntax of these fragments ambiguous, so that both of them allow alternative "innocent" readings, in which $\sigma o \phi \delta v$ means simply "wise" or "wisdom" rather than "The Wise Being": cf. Heraclitus' retort to Euthycles' charge in Ps. Heraclit. Epist.IV, pointing to the wrong *diastixis*. The name of the supreme god on Heraclitus' theology has been compared with Persian Ahura Mazda "The Wise Lord" by Martin West (1971) 180-181 and others. If there is indeed such connection, we would not consider it as a mere "influence" of the Iranian religion, but rather as a *peritrope*, a polemical Hellenic reply to the Persians, since in Heraclitus (as West himself correctly points out) the "Wise being" is intricately bound with Zeus. Zeus was traditionally regarded by Greeks as the "wise god" (Homeric stock epithet μητίετα Ζεύς) long before the formation of Persian empire.

For this reason, the author of the dream theory prohibits to apply to these simples any demonstrative pronoun and any other deictic expression like «this», «that», «each», «single» (αὐτό, ἐκεῖνο, ἕκαστον, μόνον) etc. This prohibition to use deictic expressions with a reference to elements is in perfect agreement with Heraclitus' regular omission of articles and demonstrative pronouns (like $\tau \acute{o} v \delta \epsilon$) when he refers to phenomenal opposites. Both in Heraclitus and in the «dream theory» the simple letters stand for the cosmic opposites or elements that in Heraclitus agonistic model of the cosmos constantly «run in a circle» on the road «up and down» (ὑδὸς ἄνω κ άτω), while in the "dream theory" they also "run hither and thither" ($\pi\epsilon\rho\iota\tau\rho\epsilon\gamma\sigma\tau\alpha$). An article, a demonstrative pronoun or any other deictic expression «fixes» an object and identifies it as it were something permanent and 'staying still'. But the phenomenal opposites are not stable, since they are immersed in the Universal flux and interchange. As Aristotle puts it in his summary of Plato's metaphysics inspired by Heraclitus, «since all sensibles are permanently in flux and knowledge about them is impossible»: the τῶν αἰσθητῶν ἀεὶ ῥεόντων καὶ τῆς ἐπιστήμης περὶ αὐτῶν οὐκ oύσης, Arist. Metaph.987a33-34.

7. Pluralis poeticus (or philosophicus?).

Another idiosyncratic feature of Heraclitus style is that he often uses plurals where most writers of prose would have used singular. Here are examples of this seeming *pluralis poeticus:* ψυχρά, θερμά, ύγρά, καρφαλέα (46L/B126), ποταμοῖσι, αὐτοῖσι, ἐμβαίνουσι, ὕδατα (φp. 67b Leb/B12), ψυχαί, ὑγρῶν (67c Leb/B12), ψυχῆισι (69Leb/B36, 70Leb/B77), μόρους (78Leb/B20), γνώμας (82Leb/B78), συλλάψιες (106Leb/B10), μόροι, μοίρας (136Leb/B86), αἰδοίοισι, ἀναιδέστατα (148Leb/B15).

The easiest way to explain the use of *pluralis poeticus* in prose is to attribute it to the influence of the poetic language: Heraclitus is one of the earliest philosophical prose writers, he writes in the Ionian dialect cognate with the Homeric dialect etc. In some cases, this might be true, but not in most. E.g., the rare use of $\gamma v \dot{\omega} \mu \alpha \zeta$ in the sense of "wisdom" or "wise insights" may be poetic (cf. Ion of Chios B 4 DK). But in the case of "rivers" and "souls," the *pluralis* seems to be philosophically significant and theoretically loaded, and not just a poetic feature. Virtually all numerous ancient quotations, paraphrases and reminiscences of this famous fragment with the image of "rivers" (67b Leb/B12), substitute for the original *pluralis* $\pi o \tau \alpha \mu o \zeta$ "rivers" a *singularis* $\pi o \tau \alpha \mu \phi \zeta$ "river". And indeed, why a

single river is not sufficient for a symbol of change? And why an image of the soul as a river flowing inside our psyche is not sufficient to convey the idea of the flux of consciousness and constantly changing sensations and impressions? Since fr. 67b Leb/B12, unlike Plato's too narrow ontological interpretation of it in Cratylus 402a, is concerned with personal identity (or lack of it), i. e., is primarily psychological and anthropological, and not (only) metaphysical and epistemological, we cannot exclude the possibility that this text provides yet another example of Heraclitus' reform of ordinary language, i. e., of bringing it in line with the objective reality or "nature". If a river is new every single moment, then what we call in ordinary language by a singular name "river", is in fact not one thing, but many things, a series of innumerable "rivers" that succeed each other in the flow of time, then the "correct" and "conforming to nature" way to name this temporal series is to use the plural instead of the singular. The same applies to our "souls" which, like the sun, are new every day, as we "kindle up in the morning after going out in the evening" (75Leb/B26). Hence Heraclitus' general predilection for *pluralis poeticus*, or rather philosophicus, when he speaks of the phenomenal world and the world of mortals. However, when he touches on the absolute and the divine, he switches from the plural mode to the strict singular. The "logoi" of humans, poets and philosophers, are many and empty (139Leb/B108). The divine "this logos", like "this cosmos", is one and the same for all and forever (ἀεί).

8. Folklore elements. Proverb, parable, riddle.

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traditional beliefs, the inability to think independently and to rely on personal experience and sound judgment rather than to listen to the childish poetic myths about gods and the origin of the cosmos. Another popular adage "eyes are more accurate witnesses than ears" (ὀφθαλμοί τῶν ὤτων ἀκριβέστεροι μάρτυρες fr.13Leb/B101a) puts personal experience, i. e., knowledge of a witness obtained by what he has seen "by his own eyes", above the "things heard", i.e., above the traditional myths told by the poets. There was a traditional Greek proverb about puppies who "bark at their master", i. e., about ingratitude towards masters, parents, teachers or benefactors quoted in Heraclit. fr. 126Leb/B97 κύνες καὶ βαύζουσι ὃν ἂν μὴ γινώσκωσι "the dogs bark at someone they do not recognize". Various conjectures have been proposed about who are the dogs and who is the one at whom they bark in Heraclitus' use of the proverb. We connect the conflict alluded to in this quotation with the "ancient quarrel" between poetry and philosophy by attributing to Heraclitus two anonymous quotations in Plato's *Republic* 607b A. (= Heraclit. Fr. probabilia 1-2 Leb.). This passage illustrates the "ancient quarrel" by a series of four quotations with mutual invectives: the first two (in Ionian prose) are invectives of philosophers against the poets, and the following two (in iambic verse) are invectives of poets against philosophers, including Socrates or Plato' Academy, from the ancient or middle comedy; this makes the expulsion of poets a just retaliation³⁸. The poet who is "great in the empty talk of fools" (aphrones recalls axynetoi in Heraclitus) is Homer; he behaves like a "dog barking at his master" (λακέρυζα πρὸς δεσπότεα κύων) when in his condemnation of war and strife (Il. 18.107) he attacks Polemos, the real "father and king of all" gods and men, and therefore his "master" as well³⁹.

The bizarre folk legend of the death of blind Homer on the island of Ios, containing the riddle of lice (fr.20Leb/B56), Heraclitus transforms into a highly sophisticated epistemological parable about ignorance of men who are deceived by the appearances ($\varphi\alpha\nu\epsilon\rho\dot{\alpha}$)

³⁸ Ionian prose: κενεαγορίαισιν (κενεηγορίηισιν in the original text) and δεσπότεα, a rare accusative in Herodotus misread by a scribe as a Dotic form δεσπόταν.

³⁹ Cf. Heraclit 31Leb/B80, 32L/B53, fr. 35Leb/A22, fr.36L = Plut. *De Iside* 370D. We recognize in the words Όμηρον εὐχόμενον... λανθάνειν φησὶ τῆι πάντων γενέσει καταρώμενον a neglected *verbatim* quotation from Heraclitus based on a typical Heraclitean paradox εὐχόμενον καταρώμενον which Plutarch *quotes* as words of Heraclitus.

and at the same time into invective against *polymathia* of natural scientists who do not understand that in reading the universal logos ($\dot{\alpha}$ κούειν τοῦ λ όγου τοῦδε) one should "divide" only in order to reintegrate all phenomenal opposites into *xynos logos*, "killing" all the phenomenal "lice" by "grasping" them as unities (syllables) in the process of *reduction* of "many" (π άντα) to "one" ($\tilde{\epsilon}$ ν), rather than collecting empirical data in the way the Ionian *Peri physeos historia* does, and thus multiplying our ignorance. For «wisdom consists in knowing all things as one» (σοφόν ἐστι ἐν πάντα εἰδέναι, fr.1Leb/B50), as the first programmatic sentence of Heraclitus' book states in its authentic, undistorted by the 19th century pseudo-emendation form (εἶναι for MSS. εἰδέναι, still accepted by most editors and commentators).

"To forget the way back to home" was probably a proverbial expression applied to someone who got drunk at a *symposion* and therefore needed a slave with a torch that would bring him home. A drunkard who has forgotten the way home and "does not understand where he is going" (οὐκ ἐπαΐων ὅκηι βαίνει) is a moral parable of a hedonist who has forgotten the meaning of human life, and at the same time an illustration of the ethical-psychological doctrine of sensual wet and spiritual dry souls (fr.74Leb/B117). The procession of bacchants who perform *phallophoria* is a parable of insane humanity, lacking understanding that the generation of new life generates new death as well (fr.148Leb/B15).

The list of proverbial phrases, idiomatic expressions and stock formulas can be expanded: $\hat{b}\rho\alpha\iota \alpha i \pi \alpha \nu \tau \alpha \phi \epsilon \rho \nu \sigma \iota$ "the seasons that bring forth everything" (57Leb/B100, hexameter); μαινομένωι στόματι "by raving mouth" i. e. inspired by god (160Leb/B92, of Sibyl); ἐκβάλλεσθαι καὶ ῥαπίζεσθαι "should be thrown out (from competitions) and whipped" (17Leb/B42, of poets Homer and Archilochus); ἰερὰ νοῦσος "sacred disease" (epilepsy) in the sense of madness, loss of mind (8Leb/B46, of poetic imagination or senseperception); πάντων πατήρ...πάντων βασιλεύς "father of all, king of all" (32Leb/B53, Homeric formula of Zeus, turned against Homer in a kind of polemical *peritrope* and applied to *Polemos* cursed by Homer); $\pi \acute{o}\lambda\epsilon\mu\sigma\nu$ έόντα ξυνόν "one should know that the war indeed (i. e. as the proverb says) is common" (fr. 31Leb/B80, allusion to the epic formula ξυνός Ἐνυάλιος, of the vicissitudes of war); κλέος ἀέναον θνητῶν "eternal glory among mortals" (102Leb/B129); ἰατροὶ τέμνοντες, καίοντες "doctors are cutting, burning..." (111Leb/B58); οι πολλοι κακοί, όλίγοι δε άγαθοί "most

men are bad, few are good" (130Leb/B104, apophthegm of the wise Bias of Priene that became proverbial).

Aristide Dovatour (1958) distinguished the "scientific and narrative" styles in the historical prose of Herodotus. One of them he traced back to the Ionian *historia* of early logographs, systematically comparing it with epigraphical documentary formulas, and the other to the oral story-telling and folklore *novella*. *Mutatis mutandis* this distinction can be, with some reservations, applied to Heraclitus' *philosophical* prose.

The oracular, folklore elements and "oral" features in Heraclitus' style have been illustrated in the preceding pages. What about the influence, if any, of the Ionian scientific historia? We said "mutatis mutandis" implying that in the case of Heraclitus relevant is primarily the Ionian *historia peri physeos* rather than early logographs, and we said "with some reservations" implying that our remarks about the striking contrast between Heraclitus' style and that of the standard Ionian Peri physeos historia (best exemplified by the fragments of Anaxagoras) remain valid. However, when we try to understand precisely the relation between Heraclitus and the Milesians in cosmology and physics, Heraclitus' paradoxical rule "the adverse is helpful" applies. When Heraclitus says "Of all those whose *logoi* I have heard..." (139Leb/B108), he primarily means by *logoi* many books that he has read⁴⁰, the works and Anaximander and Anaximenes among them, as well as Xenophanes' popular exposition in verse of the new Milesian meteorology; influence of all these works on Heraclitus "cosmic" fragments has been correctly localized and variously discussed in modern literature. But one thing has escaped the notice of those scholars who performed such comparison following the general physicalist interpretation of Heraclitus in the hermeneutic tradition of Burnet-Kirk-Marcovich: that Heraclitus' use of the new cosmological, astronomical and meteorological theories of the Milesians was not a mere borrowing, but a *peritrope*, i. e., fighting the opponent with his own weapons. Heraclitus borrows from the Milesians the fundamental naturalistic concept of *physis* and reinterprets it teleologically. He borrows from the Ionian science the fundamental method of empirical inference from tekmeria and even proclaims himself on empiricist and

⁴⁰ On the ambiguity of ἀκούειν and the meaning "to read a book" see the section on *logos* in our "Outline of Heraclitus' philosophy", *Logos Geraklita*, 103–114 and note 10 above; on grammatical (alphabet) analogy in Heraclitus ibid. 61–69.

sensualist: ὄσων ὄψις ἀκοὴ μάθησις, ταῦτα ἐγὼ προτιμέω "Whatever can be seen, heard and learned [from experience], that's what I prefer" (fr.18Leb/B55). But all his alleged "tekmeria" of the identity of opposites, like his analogies between physis and tekhnai, are intended as "proofs" of the existence of the single divine mind "steering the whole Universe" and the "works" of man, and thus to refute the Milesian evolutionary (non-creationist) cosmogonies. He avails himself of the Milesian astronomical theory $\pi\epsilon\rho$ $\tau\rho\sigma\pi\eta$ $\kappa\alpha$ ίσημερίας "on solstice and equinox" and "turns it around" against them: the fact that the Sun performs "reversal" ($\tau \rho \sigma \pi \eta$) always on the same "set month" (μηνί τακτῶι, PDerv, col. IV, 13) is for Heraclitus a proof that the cosmos is governed by divine mind, and that the Sun is an intelligent god (identified with Apollo) who obeys the "divine law" of cosmic justice, and not a "hole" in the celestial wheel of Anaximader or a flying fiery "leaf" of Anaximenes. The cosmic cycle of Heraclitus, in fragments 44-45Leb/B 31 DK has nothing to do with "chemical" cosmogony or "transformations" of fire: it is a calendar of the "Great year" (Megas Eniautos) based on the Milesian astronomical parapegma and describing its "turning points" (tropai) as "reversals" of the great cosmic battle of the four world masses. In this case the Milesian science again is put in the service of theology and religion since the terminal stage of the great cycle, the domination of Fire (Koros), is conceived as a Last Judgement in which the sinners (κακῶς βεβιοκότες in Clement's paraphrase) will be punished, and only the "purified" souls of the heroes and the wise will survive the scrutiny (dokimasia) by fire, and will become good *daimones* and "guardians" (phylakes) of men (fr.156Leb/B63).

The most remarkable possible example of Heraclitus' direct use of the Milesian scientific astronomy is provided by the fragment on the phases of the Moon quoted in the Oxyrrhynchus fragment of a commentary to "Odyssey" published in 1986: The Oxyrhynchus Papyri, vol. LIII, ed. W.W. Haslam, London, 1986; # 3710 Commentary on Odyssey XX, col. ii, 43–47.

(a) Ηράκλειτος συνιόντων τῶν μηνῶν ἡμέρας — ἐξ [ὅ]του φαίνεται προτέρην νουμεν[ί]ην δευτέρην — ἄλλοτ' ἐλάσσονας μεταβάλλεται ἄλλοτε πλεῦνας (ibidem, col. iii, 7–11).

(b) μεῖς τρ[ιταῖος] φαινόμενος ἑκκαιδ[ε]κάτηι πασσέληνος φαίνεται ἐν ἡμέραις τεσσαρεσκαίδεκα, ἀπολιμπάνει τὸν ὑπόμετρον ἐν ἡμέρηισι ιγ'.

(a) Heraclitus: "At the convergence of the months — from the moment it becomes visible on the day before, the new moon day or

the second day — the moon accomplishes her transformations now in fewer days, now in more".

(b) "When the moon first appears on the third day, it becomes visible as full moon on the sixteenth. It wanes the remaining time (of the month) during 13 days."

I must confess that I have included this text in my edition into the main corpus of authentic corpus of Heraclitus' fragments (and not into the section "Dubia et spuria") with hesitations (fr. 60Leb.). The style of this fragment is strikingly different from the style of all other extant fragments. No metaphors, no allusions, no figurative language, no peculiar features of Heraclitus' style and syntax discussed above, just a piece of plain, detached, descriptive, objective astronomical prose. A confusion with Milesians or Democritus? On the other hand, the Ionian dialect, Thales' theory of eclipses quoted in the context (which rules out another Heraclitus), as well as the evidence of Hipocratic De diaeta 1.5 (= Heraclit. fr. 54 L) that Heraclitus indeed cited the regularity of the phases of the moon together with the regularity of solstices. The authenticity of this fragment can be saved only if we assume that it is not a piece of descriptive astronomy, but is rather connected with Apollonian hebdomadism attested in fr.64L/B126a and possibly in the doxographic complex about "generation" ($\gamma \epsilon \nu \epsilon \dot{\alpha}$): $30 = 14 \cdot 2 + 2^{41}$. In this case the connection of the cycles of the moon with the Apollonian number seven, according to Heraclitus, also is an empirical "proof" (tekmerion) that the cosmos is governed by the divine mind. It is conceivable that Heraclitus quoted or copied this passage on the phases of the moon from a Milesian Π Epi $\varphi \dot{\varphi} \sigma \varepsilon \omega \zeta$ or an early Ionian astronomical treatise without changes because it perfectly suited his purposes. However, the contrast with the style of the fragment on the Sun that "does not exceed the set limits" because of the fear of Erinyes, remains striking.

9. Fränkel's "proportion".

In a classic article "A thought pattern in Heraclitus" Herman Fränkel described an important form of thought in the texts of Heraclitus, which he conventionally called "geometric proportion" (Fränkel 1938: ff. 314). By this term Fränkel means analogy or parallelism of two relations between three members: A, B, C, of which two (B, C) are well known from experience, whereas the third

⁴¹ Heraclit. fr.71L/A19DK, fr. 108 Marcovich.

(A) transcends human experience, but can be elucidated *per analogiam*:

A: B = B: C

A classic example is the fragment of Heraclitus 83Leb/B79: "A man is considered a child by a god like a child by a man". This saying is based on the following "proportion" or analogy:

man **(B)** man **(B)** child god (A): = : (C). The relation between the intelligence of a child and that of an adult man is known to everyone. The intelligence of god is not directly known to us, but we can form an idea about it concluding by analogy: the intelligence of god is superior to the intelligence of an adult man in the same way as the intelligence of an adult is superior to the intelligence of a child. According to Fränkel, the sought-for A (Absolute or highest perfection) in Heraclitus belongs to the transcendental sphere, B is the human norm, and C is the lowest level. The adult man in our example is a "geometric mean": he is intelligent in relation to a child, but silly in relation to a god, and therefore combines in himself two opposites. The thought pattern of "proportion" simultaneously elevates the hierarchical status of a god and lowers the status of a man. However, Heraclitus does not set a goal to humiliate or to mock humanity; his goal is to enlighten humans, to make people "wake up", to realize their deficiency and to rise to a higher level (Fränkel 1938: 318). Theological implications can also be found in the hierarchical triad of god, man and a monkey (84Leb/B83), as well as in the important fragment on the Cosmopolis or the polis of Zeus, fr.131Leb/B 114:

Citizens of the polis: the law of the polis = all human laws: the one Divine law (cf. Fränkel 1938: 320).

According to Fränkel, Heraclitus borrowed this thought pattern from the Pythagoreans, since he mentions Pythagoras and could be familiar with his discovery of the musical intervals and the geometric progression (Fränkel 1938: 321–22). Fränkel's article may well be one the most brilliant and important contributions to the Heraclitean studies in modern times, but in this particular derivation he was mistaken. Heraclitus was undoubtedly familiar with the Pythagorean metaphysics and borrowed from it, with modifications, the idea of cosmic harmony. But the three-term analogy has nothing to do with mathematics and Pythagoreans. As we hope to show in a special study, it derives from oracular practice and is connected with the oracles of Apollo; therefore, it is older than both Heraclitus and Pythagoras. The three-term analogy should not be confused with the metaphorical analogy also used by Heraclitus, based on parallelism (and not on the gradation) of four or more terms. In the three-term analogy, all levels are "referential", but arranged in a hierarchical scale⁴². In the metaphorical analogy (which can be "compressed" into a metaphor), one level is iconic, and another is referential. For example, in fr. 69B Leb/67a DK:

Soul: Body = Spider: Web.

The image of the spider and the web pertains to the iconic or modelling level and explicates the relation of the soul to the body which pertains to the referential or modelled level. In the three-term analogy there is no iconic level in the strict sense, but its function (modelling) is performed by the relation of the two lower "known" terms B: C; it is this relation of two lower terms that models the relation A:B between one known (B) and one sought-for unknown term (A) by "projecting" B:C on A:B. In some sense, the iconic equivalent of the referential (A) is the "magnified" middle term (B), but the proportion of magnification cannot be known without the lowest term (C).

10. Chiasmus (χιασμός).

The word order in some fragments of Heraclitus can be determined only by the chiastic structure. Therefore, the knowledge of this peculiarity of Heraclitus' style is a practical necessity, since due to the rare use of the article, in some cases it is only relying on the chiastic structure of the text that we can distinguish a subject and a predicate. We distinguish below the four main types of chiasmus in Heraclitus' fragments.

Type 1: A fit B | B fit A

fr. 46Leb/B126: ψυχρὰ (A) θέρεται (B), θερμὰ (B) ψύχεται (A) "the cold (A) becomes hot (B), the hot (B) becomes cold (A)

fr. 76Leb/B88: táde (A) μεταπεσόντα ἐκεῖνα ἐστι (B), κἀκεῖνα (B) μετεπεσόντα τάδε (A).

"these things (A) become those (B) and those things (B) become these (A) again"

fr.45Leb/B31+45A Leb: θάλασσα (A) διαχέεται ... η γενέσθαι γη (B), <γη (B) διαχέεται ... η γενέσθαι θάλασσα (A) >

the sea (A) is scattered and replenished to the same amount as before it became earth (B), <earth (B) is scattered and replenished to the same amount as before it became sea (A)

⁴² The three-term analogy displays a certain similarity with the rhetorical figure of *climax* (Demetrius, De elocut. 270, Quint. 9. 3. 54 etc).

fr.106Leb/B10: ἐκ πάντων (A) ἕν (B) καὶ ἐξ ἑνὸς (B) πάντα (A) from all (A) one (B) and from one (B) all

fr.153Leb/B62: ἀθάνατοι (A) θνητοί (B), θνητοὶ (B) ἀθάνατοι (A) immortals (A) mortals (B), mortals (B) immortals (A)

fr.42Leb/B90: πυρὸς (A) ἀνταμείβεται πάντα (B), ἀπάντων (B) πῦρ (A) χρυσοῦ (A) χρήματα (B) καὶ χρημάτων (B) χρυσός (A) <god>

exchanges fire (A) for all things (B) and all things (B) for fire (A) as if gold (A) for property (B) and property (B) for gold (A).

Type 2: S P | P S (S = subject, P = predicate)

fr.31Leb/B80: τὸν πόλεμον (S) ἐόντα ξυνὸν (P) καὶ δίκην (P) ἕριν (S) War (A) is common (B) and rightful (B) is strife (A)

Type 2bis: non-A is B | non-B is A

fr.77Leb/B21: θάνατός (non-A) ἐστι ὀκόσα ἐγερθέντες (B) ὀρέομεν, ὀκόσα δὲ εὕδοντες (non-B) βίος (A)

Death (non-A) is what we see awaken (B), what we see sleeping (non-B) is life (A)

Type 3: A fit B | B fit C || C fit B | B fit A

fr.69Leb/B36: ψυχῆισι θάνατος ὕδωρ γενέσθαι κτλ. For the souls it is death to become water etc.

Type 4; A fit B | B fit C | C fit D || D fit C | C fit B | B fit A

fr.47 (b) Leb /B76: γῆς (A) θάνατος ὕδωρ (B) γενέσθαι, καὶ ὕδατος (B) θάνατος ἀέρα (C) γενέσθαι, καὶ ἀέρος (C) πῦρ (D), καὶ ἕμπαλιν.

Of the earth (A) death is becoming water (B), of the water (B) death is becoming air (C), of the air (C) becoming fire (D), and in reverse order, i. e. (D), (C), (B), (A).

The types of chiasmus in Heraclitus can be classified in two ways: as binary versus multi-term on the one hand, and as dynamic versus static (FIT/EST), on the other. The types 1 and 2 are binary, the types 3 and 4 are multi-term. The types 1, 3, 4 are dynamic and describe processes of becoming (FIT), the type 2 is static and establishes an identity between terms (EST). This distinction is formal and grammatical rather than metaphysical, since speaking of the cyclic interchange and interconversion of opposites, Heraclitus asserts their identity. Note that the main and prevalent in Heraclitus type of chiasmus (A) corresponds to the formula "the way up and down" ($\delta\delta\delta\zeta$ $\tilde{\alpha}\nu\omega$ $\kappa\dot{\alpha}\tau\omega$ $\mu(\alpha)$ which, judging by its very high frequency of occurrence in the Heraclitean tradition, was a standard universal formula of cyclical change used repeatedly in the cosmological section of Heraclitus' book, not only in a single fragment 50Leb/B60. The words χωρεῖ πάντα ... ἄνω καὶ κάτω ἀμειβόμενα *De diaeta* I,5 "All things are moving...alternating up and down" constitute a verbatim quotation and a separate fragment of Heraclitus 51 Lebedev, independently quoted by Lucian, Philo Alexandrinus and Plato in *Cratylus* (see *testimonia* in our edition pp.165–166).

The chiastic structure of the text is based on the principle of a mirror symmetry: there is a "left" and a "right side" in it, and in the "right side" the word order is inverted with respect to the left. When it comes to opposites and cosmic elements, the amoebean structure of the text reproduces, consciously or not (it is hard to say), the "*palintropic*" ("reversed") harmony of the cosmos. The type (1) chiasmus is attested in early inscriptions and is therefore a pattern of thinking rather than a rhetorical figure. As Dover acutely pointed out, "the fact that boundary stones may be chiastic shows that chiasmus is not necessarily a literary embellishment" (Dover 1960: 54). Heraclitus's chiasmus resembles the ring-composition in Homer and in archaic poetry, which is regarded as a feature of the "oral" style. Moreover, the Homeric type A - B - C - X - C - B - A formally coincides with the Heraclitus' chiasmus type $(4)^{43}$. To the central element in the Homeric scheme (X) in Heraclitus's dynamic types (3 and 4) corresponds the implied "turning post" (τέρμα) in the imagery of the cosmic stadium, a terminal point of a momentary stop and "reversing" the course ($\pi\alpha\lambda$ ίντροπος κέλευθος) in the eternal "race" (cf. ἐναντιοδρομία, fr.51A Leb.) on the "road back and forth" (δδὸς ἄνω κάτω, fr. 50-51L). What is primary in this case, the thought or the word, is hard to say, but the archaic feature of literary style (chiasmus) and the cyclic symmetry of Heraclitus cosmology are in perfect harmony. The type (1) of chiasmus in Heraclitus can be also compared with the archaic feature of Greek inscriptions, the principle of boustrophedon, following which the hand of a stone-cutter moves "back and forth".

⁴³ On the ring-composition in Homer see, e.g., St. Nimis, Ring-composition and linearity in Homer, in: Mackay (1998) 65–78. Nimis emphasises that this is a speech movement rather than a static literary form. This makes the parallelism with Heraclitus even more striking. On the ring-composition in Greek vase-painting see the work of Mackay-Harrison-Masters, ibidem 115–142.

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