The Origin and Semantic Development of the Term *Harmony*

PETAR HR. ILIEVSKI

I

The word *harmony* (αρμονία), which has been accepted together with the rich cultural and lexical classical Greek heritage into all European languages, has a long history. It has often been the subject of profound studies both from a formal and a semantic point of view, including interpretations of different philosophical statements about harmony and numerous transformations of the mythical figure of Harmonia. There is, however, reason to discuss this interesting theme once again and to cast some fresh light on it.

A generally accepted definition of *harmony* is “reconciliation of opposites, a fitting together of disparate elements, whether in music, universe, the body politic, or the body of man.” This is, in fact, one of its last meanings, already formed in the classical Greek epoch. Linguistic studies, among which the Ph.D. dissertation by P. B. Meyer (above, note 1) is to be especially stressed, have laid a solid basis for the etymology and the historical development of its meanings in classical Greek literature.

However, the question of how the term *harmony* was formed and from which dialectal basis it originated, cannot be answered only by means of classical Greek. Today its development can be followed since Mycenaean times.

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* I would like to thank David Sansone for his valuable improvements in my text.

1 The number of studies devoted to this subject is enormous. Here I shall mention only a few of them: P. Bonaventura Meyer, O. S. B., APMONIA: Bedeutungsgeschichte des Wortes von Homer bis Aristoteles (Zurich 1932); F. Jouan, “Harmonia: Mythe et personification,” Actes du Colloque du Grand Palais, Paris 7–8 Mai 1977 (Paris 1980) 113–21, with earlier literature.


The aim of this paper is to explain the origin of the term *harmony*, adding some further arguments concerning its stem from the Mycenaean documents written in Linear B. The development of different meanings of this word in classical Greek literary sources has been quite often scrutinized. Therefore, here it will be traced very briefly, comparing its metaphors and metonymies with the metamorphoses of the mythical figure Harmonia. Our distinguished colleague who is being celebrated with this volume, an outstanding classical scholar and polyhistor, and to whom this article is dedicated, also made a considerable contribution to this problem with his lucid explanation of *harmony* in Heraclitus’ philosophical system.

II

The exact etymology of ἀρμονία was discovered at the end of the last century. This word is derived from the IE verbal stem *ar-*, which appears in Greek ἀραρίσκω, “fit together,” “join,” “fasten,” as well as in other IE languages. The etymological connection between ἀρμονία and ἀραρίσκω, or rather ἀρμόζω, is evident from the Homeric description of how Odysseus, with the permission of Calypso, built his boat (Od. 5. 247–48; cf. also 361):

τέρνην δὲ ἄρα πάντα καὶ ἡρμοσεν ἀλλήλοισιν
γόμφοσεν δὲ ἄρα τὴν γε καὶ ἁρμονίησιν ἁρασσεν.

In shipbuilding ἁρμονία, in Homer always in the plural, there are elements which serve for fastening together with γόμφον, “bolts” (<*gombh*, Slav. *zgb*, Skt. *jambha*, “tooth”; cf. Hesych. γόμφον· ὀδόντες), different parts of a whole. They give to the boat a form of joint unity. The verbal form ἡρμοσεν is related both to ἁρμονίησιν and γόμφοσιν, which are semantically close and have the same function. The coradicate relation between ἡρμοσεν (< ἁρμόσσω, -ζω < *ἀρμοτ-ι-ω) “to join” and ἁρμονία, with numerous metaphorical meanings and metonymies, is indisputable.

The verb ἁρμόζω (-σσω/-ττω) is denominative, derived from a noun corresponding to ἁρμα, -τος in classical Greek, in Homer usually plur. ἁρματα, with the meaning “chariot.” But this Homeric and classical Greek form cannot explain either the verb ἁρμόζω or the term ἁρμονία. The denominative verbs in -ζω (-σσω/-ττω) derived from nouns in -μα (neuter) in classical Greek end in -άζω or -ατίζω, from the stem of the oblique cases: ἀσθμα – ἀσθμάζω, ἔχμα – ἔχμαζω, ἀσκύμα – ἀσκύμαζω (-τιζοματι), θύμα – θυμάζω, κόμα – κομάζω, etc. In Modern Greek, by analogy with other derivatives from neuters in -άζω, the noun ἁρμασιά, “wedding” and

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4 J. Pokomy, IEW 55–60.
Δρμαστός = μνηστήρας, “betrothed” are formed from Δρμάζω with a metaphorical meaning.

The word Δρμονία, however, remained unchanged both in Greek and in the other European languages. The question is how to explain this form, with the vowel -o- (-mo-) instead of -a- (-ma-), when it is well known that it is from a noun which in classical Greek and Homer is Δρμα. Today this question can be answered by the aid of Mycenaean Greek.

III

On the Knossos and Pyllos Linear B tablets dealing with chariots and chariot equipment, classified in S-series, the word a-mo /Δρμο/ instead of Δρμα appears quite often. The word is also documented in the nom./acc. plur. a-mo-ta /Δρμοτα/ and dual a-mo-te /Δρμοτε/; cf. also the personal name a-mo-te-u /Δρμοστευς/. Its meaning here is not “chariot,” but “wheel,” as is proved by the ideogram *143, a circle with crossed lines (= 4 spokes), which follows this word. The name for chariot in Mycenaean is i-qi-ja, ἀπικία, “horse-drawn war-chariot,” from i-qo /hιq“ος/, ἀπικος. The Homeric term Δρματα for chariot is a synecdoche, named according to one of its parts (pars pro toto) like roof for “house.” In some other IE languages the plural or dual of the name for wheel also denotes “chariot”; cf. Skt. ratha, Lat. rota, Lith. rātas, Slav. kola, etc.

The perf. middle/pass. pple. a-ra-ro-mo-te-me-na /Δρμομοτημενα/ (< Δρμάζω) is used as an epithet for an assembled chariot. After every use of the chariot its parts, especially the wheels, were disassembled and kept separately in order to protect them from exposure to the elements (Od. 6. 57, 69, etc.). Such a practice can be seen in some parts of the Balkans even today. In addition to a-ra-ro-mo-te-me-na we have the verbal adj. a-na-moto, plur. i-anarmostoi (< anarmottoi: υ < στ), along with the ideogram *142 (ጸ), a frame of the chariot.

These two terms are related to chariots, consisting of many parts, and wheels are especially important since without them the chariot cannot exist. The Mycenaean name for wheel, a-mo /Δρμο/, from the stem *ar-, is formed with the suffix -(s)mη(i)-, the reflex of which is either -mo(t)- or -ma(t)- (cf. pe-mo /spermol/ and pe-ma /spermal/), but a-mo is always written


7 In Op. 456 Hesiod says that the foolish man fails to realize that you need a hundred pieces of wood for an Δρματα; cf. N. J. Richardson and S. Piggott, “Hesiod’s Wagon: Text and Technology,” JHS 102 (1982) 226.
in this form by different scribes. This very likely means that the word a-mo became a technical term in Mycenaean; therefore, the scribes of different dialects used only the form with the reflex -o- (-mo-). The initial aspiration of ἀρμα very likely is from an s in front of the suffix -m(t).8

In Greek there are some other names for wheel: κόκλος, which denotes circle, from *ƣeł- with reduplication *ƣe-kl-, Lith. kālkas, Lat. cyclus, colo, Russ. kol′šco, Serbocroat. kolo, kotač, Maced. kolce, etc., and τροχός, which contains the idea of its function from τρέχω, "run," Slav. trkalo < trčati, točak < teci.9 In Mycenaean both κόκλος and τροχός were known,10 but in the terminology of the chariot only the word a-mo was used and not without reason.

The history of the wheel can now be followed from the fourth millennium B.C. From the archaeological finds one can trace its development from a monolithic block-wheel and disk-shaped wheel11 to an open and light-spoked wheel from the middle of the second millennium B.C. The felloes of the earliest spoked wheel were made from a single piece of wood, bent in a full circle by heat, as can be seen from the Egyptian chariot from Thebes (1435 B.C.).12 In a Mycenaean grave a wheel has been discovered with two apses, naturally bent. There are also Mycenaean wheels with four felloes, as in Homer and Hesiod.13

The original meaning of (h)armac was "joint work," like an arm with its most mobile joints. The arm is an organ with which one can carry, pull or push a load. The wheel is a kind of substitute for the arm. With the help of wheels a man and a horse were able to pull a load many times greater than what they could carry on their backs. A more convenient name for such a useful invention could not be imagined than (h)armac < *ar-s-m(t)-, which already existed in pre-Mycenaean vocabulary with a meaning similar to the numerous nearer and further parallels in the other IE languages. The most adequate parallel is the Slavic ramo.

One of the most frequent meanings of harmonia in classical Greek is "joint," a synonym of which is ἀρτύς. From the stem of ἀρτύς the denominative verbs ἀρτύω and ἀρτύνω are derived. Their meaning, "put in

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10 Cf. the personal names ku-ke-re-u [Kukleus] and to-ro-ki-no [Trokhinos].
order,” appears in coradicals of some other IE languages, e.g. Arm. ardu, Skt. ṭu, “order.” But Lat. artus, -us, diminutive articulus, corresponds exactly to Gr. ἀρτός with the meaning “joint” of bones, and from the same semantic circle is armus, -i, Slav. ramo < *ar-smq, with a metathesis of the liquid, Skt. ḍṛmāḥ, Avest. āraṁa, “humerus,” corresponding to Myc. (h)armo. Slav. jaram, jarem, Arm. yarmar, “yoke” that unites two oxen or horses, Skt. arās, “spoke” that connects the hub with felloe, etc. are from the same stem.

The idea of fastening the parts of a wheel and other jointed things is, in fact, an imitation of natural joints. The joint represents a perfect functional junction of two bones,\(^\text{15}\) because one is at that point concave and the other convex, strongly bound with special fastening texture. The joints are the most important factors that make it possible for living beings to move. Many of the joints are able to provide different motion, but none of them is as universal as the humerus, which permits the arm to move in all directions: upwards and downwards, forwards and backwards, as well as to rotate about a length axis. It is remarkable that the word for wheel, (h)armo, is the same as that for Slavic ramo.

On the basis of the data set out above one can conclude: First, the wheel is an extremely important invention with a profound effect on the progress of human civilization and the Mycenaean contribution to its development is great. Even if the spoked wheel was not invented by the Mycenaean Greeks, the improvement in its technology at least belongs to the Mycenaeans. Together with the technological process of this invention the technical term (h)armo was created in the Mycenaean society, and it continued to be used in the derivatives ἄρμοζω and ἄρμονία.

Second, the dialectal basis both of the noun (h)armo and the verb ἄρμοζω can be explained only by Mycenaean phonetic rules, according to which the inherited IE vocalic nasal -m- developed a reflex -mo-. The verb ἄρμοζω is, in fact, a technical term too, and there is no doubt that the noun ἄρμονία is derived from this verb.

IV

A. Since remote times the term ἄρμονία had begun to be used in a metaphorical sense, and to spread its meaning from the material into the intellectual sphere. Along with the concrete meaning as an instrument for joining and fastening two things together (Od. 5. 248), in Homer it was used

\(^{14}\) The original meaning of Slav. ramo, “joint” later changed to “shoulder.” In Church-Slavic texts the Greek words ὀμός, “shoulder,” νότος, “back” and μετάφορον, “broad of the back” are translated as ramę, ramo; cf. Lexicon linguae paleoslovenicae, ČA (Prague 1966–90) s.v.


In the physical sphere the term ἀρμονία had continued to be used with the meaning "junction" in post-Homeric times. In classical Greek numerous synonyms, coradical forms from *ar-, appear with the same meaning ("fastening," "joint"), e.g. ἀρτύς (see above), ἀρμός in masonry for joining stones through cut channels and putting bolts in them, ἀρμογή, "junction," ἀρθμός in a physical sense, "bond," but also "friendship," etc. It is interesting to note that this word in Mycenaean Greek a-to-mo /arthmos/ had a similar meaning, "guild of craftsmen" (especially among the smiths), which represents a product of an organized society.

B. a. The musical meaning, by which the word harmony today is usually known, was developed gradually. In Homer this meaning is unknown. Pindar's teacher Lasus (VI cent. B.C.) first attributed a musical meaning to harmony, though not as a "chord," but only as accent and intonation. Sappho also finds that accent and intonation are ἀρμονία. The Greek pitch, especially when it unites two or three words into one accent-whole, could, of course, be called harmony. In a full musical sense as chord and octave harmonia was first used by Pindar.

The octave was a great discovery of the Pythagoreans. They noticed and explained that a string of the same length, thickness and strain always gives a tone of the same pitch, but if we divide that string (1:2), the one half will give a tone an octave higher. The Pythagoreans, who thought that number and proportion of numbers with the mass are the basis of the whole world, discovered a wonderful regularity in the sonority of the segments of the chord: Two thirds give quinta, three quarters quarta, etc. According to them the musical harmony and octave are identical. At the same time they found such a proportion in the cosmos. In music they discovered seven tones, the heptachord; the eighth connects the octave of a lower with a higher scale. By analogy this is transferred into the planetary system, in which they found seven planets which move at different speeds in concentric circles round a spherical axis as a centre.

According to them, as according to Heraclitus, the basic factors in the cosmos are number, mass and harmony. External harmony is a result of an internal ἀρχανῆς ἀρμονία which, as the soul of the world, unites the opposite elements in a whole.

On the basis of the Pythagorean definition of harmony as number and musical scale, Plato also discovered mathematical relations in the musical intervals. He found three main chords in the first four members: 2:1 octave, 3:2 quinta, 4:3 quarta. Arranging the numbers in a geometric figure, so that on the left-hand side are put even numbers, and on the right-hand

16 For different meanings of ἀρμονία in classical Greek, see Diccionario Griego-Español III (Madrid 1991) s.v. I am grateful to Professor D. Sansone for his kindness in sending me a photocopy of pages 517 and 518 of this dictionary, which we do not have in Skopje.
side odd ones, he discovered, as did the Pythagoreans, cube, which corresponds to the heptachord in music; the numbers are twice connected between themselves; the adding of the first six numbers gives the sum 27, the same as the multiplication of the numbers on the right-hand side.

b. Harmony as cosmic force. According to Plato (Tim. 31a–32c) the world is one and a whole (cf. also Heraclitus fr. 25 M) both in a physical and intellectual sense. This unity is conditioned by the aid of harmony. Plato says that the Demiourgos first created the Soul of the world, which is the harmony of the cosmic sphere, and the microcosmos—man—is a faint copy of the macrocosmos. The Soul of the world and harmony are synonyms, identical in their functions. It is a force which unites the opposite elements of Chaos. Consequently, there is such a soul, i.e. harmony, in everything.

This Platonic thought about the Soul of the world corresponds exactly to Heraclitus’ Logos (frr. 9, 25, 27 M) as a unity or coincidence of each pair of opposites, underlying unity of the world-order, which is an invisible fastening, ἀφανῆς ἀρμονίᾳ, much stronger than fastenings in carpentry, masonry and shipbuilding. According to Heraclitus and Plato, harmony, as an internal principle for the joining of opposite elements, is the primary basis of the world and of everything.

c. Harmony in psychology. The human soul is an imperfect reflection of the cosmic Soul (Plato, Tim. 47b–d; Arist., De anima 407a–b). Everything related to the cosmic Soul, as a universal principle of unity and reconciliation of opposites, also concerns every individual soul. Plato explains it by the analogy of a lyre with a body—a frame and seven strings which produce harmonic sound. The lyre and the sounds are material, but in the sounds there is soul, as in the other harmonies of the Demiourgos. This gives him reason to conclude that harmony is a kind of mixture, a joining of material and spiritual factors. Plato often repeats that harmony is σύνθεσις, i.e. a composition of opposites (ἐναντίων) both in the physical and in the spiritual sense. In the framework of this conception he found harmony in ethics too.

d. Harmony in ethics. A righteous man, according to Plato, is a result of the harmony of three elements: wisdom, which is one of the most beautiful and greatest symphonies, and bravery united with prudence (Legg. 3. 689d, Resp. 4. 430c). As a consequence of this threefoldness in the ethical sphere three other virtues appear: righteousness, which is a harmony of joy, love and hate, φιλία in its widest sense, from conjugal love to

17 P. Petrović Njegoš, who was also a great poet and philosopher, thought that harmony governs the whole cosmos. The order and harmony of the parts towards the whole and the constant laws keep this world forever (Luča Mikrokozma).

18 M. Marcovich, Heraclitus. Greek Text with a Short Commentary, editio maior (Merida 1967) 8, 28, 34, 119–29, etc.; cf. also commentary in Eraclito, Frammenti (Florence 1978) and Filozofija Heraklita Mračnog (Belgrade 1983).
highest friendship, and ἀρετή, which has numerous different meanings, and every epoch has its own ἀρετή. However, its meaning is limited by the context. For a running horse ἀρετή is speed, for one pulling, strength; for a man ἀρετή is goodness, a value in an ethical, intellectual, physical and practical sense. Such an ideal was embodied in the personality of Odysseus for the ancient Greeks.\footnote{Cf. H. D. F. Kitto, The Greeks: A Study of the Character and History of an Ancient Civilization, and of the People Who Created It (Edinburgh 1957) 169 ff.}

Until Socrates and Plato man was considered as an indivisible psychophysical whole. Rhythm and harmony unite the soul and body. Young people have a perfect rhythm and harmony (ἐυρυθμότεροι καὶ εὐαρμόστεροι, Prot. 326b), which also represents a kind of ἀρετή.

As a synonym for harmony in the ethical sense Aristotle uses the term μεσότης, “middle,” i.e. the highest point on the line that connects the ends or poles. There is no proper horizontal line. The Greeks noticed that from the surface of the sea, with which they were surrounded on all sides. Instead of horizontal lines they used to make elliptical ones, proportional to the whole. The middle is protruded. On the ethical level the middle point is the highest between two slopes. Thus, bravery is in the middle, between foolish fearlessness and cowardly fearfulness, which are extremes; between wastefulness, which leads to poverty, and heartless niggardliness is charity.

e. Harmony as an artistic term is used in aesthetics, poetry, rhetoric and especially in music. The harmony in Plato’s aesthetics represents a full consent of the idea of the good and beautiful (καλοκαγαθία is the ideal of the ancient Greeks). The same as ἀρετή is ἀρμονία in an ethical and physical sense; thus beauty is harmony from the aesthetic and ethical point of view. These two domains were simply indivisible for the Greeks. Plato (Tim. 87c) finds that “every pretty thing is good, but the beauty must not be deprived of proportions and symmetry.” The beauty is simplicity in diversity, symmetry in co-ordination, the same as in the musical and mathematical harmony. The harmony in its etymological sense of “joints” also underlies the beauty. The best joint (δεσμῶν δὲ κάλλιστος) is that which connects two different things and makes a unity of them.

The rules concerning aesthetic harmony are relevant for poetics and rhetoric. As a term in poetry and rhetoric, the word harmony is used in Plato and Aristotle for the Greek accent (προσῳδία), in which there is melody, pitch on a certain syllable and intonation. These elements make a harmony of words which ravish a man with both contents and music (ἀρμονίαν λόγων λαβόντος, Thh. 175e). Then the term is transferred to different kinds of poetry which, according to Aristotle (Poet. 1), represents imitation.

Among the synonyms with which classical Greek authors compare harmony especially significant are σύνθετον, σύνταξις and σύνθεσις in Plato and Aristotle. They are, in fact, technical terms from the field of
poetry. In the Poetics Aristotle emphasizes that the most important feature of a beautiful tragedy is composition (of the events) and proportional (i.e. harmonic) composition of its parts as the artistic work represents an organic and complete whole.

V

A. The different variants of the mythical figure of Harmonia and rites connected with her represent a very complicated body of material. In this, at first sight, mythological chaos, it is not easy to find any order. However, in a comparison between the chronological development of its meaning in different fields of the physical and intellectual life with transformations of the mythical figure of Harmonia throughout history, some coincidences are striking. This shows that, in spite of all the nebulosity of the myths, there is a reason to combine the results of linguistic studies with those from mythology.

Meyer\(^{20}\) thinks that the etymology of harmony does not help towards a better understanding of the mythical figure of Harmonia, therefore, he does not discuss this material. But a few parallels between theoretical conceptions of harmony by classical Greek authors (poets, philosophers and historians) on the one hand and popular explanations of these ideas through personifications of the mythical images on the other, will throw some light on the mythical figure of Harmonia. We must bear in mind the fact that myths have appeared among the people from whom the same poets and philosophers originated and that one and the same spirit has flowed in them. Only the form of their expression is different. While the philosophers have expounded their ideas with a logical speech, the popular masses have done the same by personifications and allegories.

B. The mythical figure of Harmonia does not appear in Homer.\(^{21}\) According to Hesiod (Theog. 933–37) Harmonia is a daughter of Ares and Aphrodite, married to the Phoenician prince Cadmus. After Cadmus had killed a dragon, the offspring of Ares, and after he had undergone a term of servitude, the Olympians, as a prize, gave him Harmonia for a wife. The wedding of Cadmus and Harmonia looks very much like that of Peleus and Thetis. Harmonia is a goddess, both of whose parents (Aphrodite and Ares) were gods, but she was married to a mortal man to whom she bore four daughters and a son. Disgraced Hephaestus, jealous because of the adultery of his wife Aphrodite, also brought wonderful presents: a cloak and a necklace. But they were fatal. Later they brought great sufferings to Thebes. Similar misfortune was caused by Iris at the wedding of Peleus and Thetis. It seems that this wedding was a transposition of the Theban one

\(^{20}\) Meyer (above, note 1) 6.

\(^{21}\) However, in the Homeric hymn to Apollo (194–96), Harmonia appears in a procession of women singing and dancing and Phoebus welcomes them to Olympus.
which had taken place about five generations earlier. These data are very significant. Harmonia is a daughter of warlike Ares and tender Aphrodite, i.e. an offspring of two extremes, an idea also expressed by poets of more recent times (cf. Schiller’s *Das Lied von der Glocke*).

Judging from the names of Cadmus and Harmonia one can conclude that their wedding represents a union of two cultures: Mediterranean with Semitic elements and IE. The name Cadmus is from a Semitic stem *qdm*, Hebrew *qedem*, *qādim*, “east,” *qadmēnî*, “men from the east.” Cadmus brought the Greeks a script from the east (Hdt. 5. 58). *Harmony*, as we have already seen, has an IE etymology. The phenomenon that she married a mortal man denotes a connection of the Sky with the Earth. Harmonia is here, in fact, an incarnation of the principle which makes possible the junction in the cosmos, i.e. a well-ordered system (*ἀρμονία τοῦ κόσμου*), as Heraclitus says, and in life: accord in the family and peace in the community.

The philosophers have identified harmony with φιλία (love and friendship) and, in mythology, with Demeter, Kore, Pandora, but most frequently with Aphrodite, the goddess of love, fertility and diversion. Plutarch noted (Amat. 23. 769a) that in Delphi there was an Aphrodite “Harma,” the goddess of love. Harma is very likely a short form of Harmonia.22

Obviously there are some parallels between the theoretical statements of the term *harmony* as a principle of connection, joining, unity of opposites in one whole and transformations of the mythical figure of Harmonia as an incarnation of that principle. It is noticeable that these parallels of the abstract ideas of *harmony* chronologically correspond to the mythical personifications of Harmonia.

**VI**

To sum up. We saw how the Mycenaean Greek dialect provides evidence about the formation of the noun *ἀρμονία* from the word *a-mo* *(h)armo* with the meaning “wheel” made by the junction of spokes and felloes. Together with the technological progress of this important invention in Mycenaean times the noun *(h)armo* was also created as a technical term from which both the verb *ἀρμόζω* and the noun *ἀρμονία* were derived. Since Homeric times the term *ἀρμονία* has been used in a metaphorical sense, and in classical Greek its use spread to all spheres of the physical and intellectual life. The gradual development of its meaning from a concrete object, *pin, peg*, to the most abstract idea of *unity* displays the cultural and spiritual development of the ancient civilization. The ancient Greeks

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attributed great importance to this idea, identifying harmony with λόγος, ψυχή, ἀρετή, etc. Diogenes Laertius (8. 33) says that ἀρετή is ἀρμονία and health, and every good and god, διὸ καὶ καθ᾽ ἀρμονίαν συνεστάναι τὰ ὀλα.

Health, both physical and spiritual, is a result of a balance and proportion, i.e. harmony, of the opposite elements, a principle which underlies the existence of the cosmos. If one of the elements is going to dominate the others, then order and harmony disappear, and this causes illness in the human body, anarchy in society, disorder in the cosmos and a return to chaos. But even in this desperate situation one can find some consolation in the philosophy of Heraclitus the Obscure. According to him life continues through the eternal change of διαφέρομενον and συμφέρομαι, returning again to harmony and love, as it is splendidly explained by Professor Marcovich.

_Macedonian Academy of Sciences and Arts_