

SEXTUS EMPIRICUS

WITH AN ENGLISH TRANSLATION BY

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IN FOUR VOLUMES

IV

AGAINST THE PROFESSORS



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PREFATORY NOTE

THIS volume contains the first six books of *Adversus Mathematicos*, viz. *Adv. Grammaticos*, *Adv. Rhetores*, *Adv. Geometras*, *Adv. Arithmeticos*, *Adv. Astrologos*, *Adv. Musicos*. As in the previous volumes the text is based on that of Bekker, the chief deviations being indicated in the footnotes. The remaining five books of *Adversus Mathematicos* are the works found in Vols. II and III of this edition. Books vii and viii are in Vol. II and the rest in Vol. III.

The Translator is indebted to the Editor, Dr. Rouse, for kindly help in explaining the passages (in *Adv. Gram.* 79 ff.) which deal with *προσφδία*. He is very grateful also to Prof. R. Hackforth for many valuable suggestions.

AGAINST THE PROFESSORS

ΠΡΟΣ ΜΑΘΗΜΑΤΙΚΟΥΣ

A

ΠΡΟΣ ΜΑΘΗΜΑΤΙΚΟΥΣ—ΠΡΟΣ ΓΡΑΜΜΑΤΙΚΟΥΣ

- 1 Τὴν πρὸς τοὺς ἀπὸ τῶν μαθημάτων ἀντίρρησιν κοινότερον μὲν διατεθεῖσθαι δοκοῦσιν οἱ τε περὶ τὸν Ἐπίκουρον καὶ οἱ ἀπὸ τοῦ Πύρρῳ, οὐκ ἀπὸ τῆς αὐτῆς δὲ διαθέσεως, ἀλλ' οἱ μὲν περὶ τὸν Ἐπίκουρον ὡς τῶν μαθημάτων μηδὲν συνεργούντων πρὸς σοφίας τελείωσιν, ἢ ὡς τινες εἰκάζουσι, τοῦτο προκάλυμμα τῆς ἑαυτῶν ἀπαιδευσίας εἶναι νομίζοντες (ἐν πολλοῖς γὰρ ἀμαθῆς Ἐπίκουρος ἐλέγχεται, οὐδὲ ἐν ταῖς κοιναῖς ὁμιλίαις καθαρῶν),
2 τάχα δὲ καὶ διὰ τὴν πρὸς τοὺς περὶ Πλάτωνα καὶ Ἀριστοτέλη καὶ τοὺς ὁμοίους δυσμένειαν πολυμαθεῖς γεγονότας. οὐκ ἀπέοικε δὲ καὶ διὰ τὴν πρὸς Ναυσιφάνην τὸν Πύρρῳ ἀκουστὴν ἔχθραν πολλοὺς γὰρ τῶν νέων συνέιχε καὶ τῶν μαθημάτων σπουδαίως ἐπεμελεῖτο, μάλιστα δὲ ῥητορικῆς.
3 γενόμενος οὖν τούτου μαθητῆς ὁ Ἐπίκουρος ὑπὲρ τοῦ δοκεῖν αὐτοδίδακτος εἶναι καὶ αὐτοφυῆς φιλόσοφος ἠρνεῖτο ἐκ παντὸς τρόπου, τὴν τε περὶ

^a §§ 1-8 are Introductory.

AGAINST THE PROFESSORS

BOOK I

§§ 1-40—AGAINST THE PROFESSORS; §§ 41-
END—AGAINST THE GRAMMARIANS

^a THE case against the *Mathematici* (or Professors of Arts and Sciences) has been set forth in a general way, it would seem, both by Epicurus and by the School of Pyrrho, although the standpoints they adopt are different. Epicurus took the ground that the subjects taught are of no help in perfecting wisdom; and he did this, as some conjecture, because he saw in it a way of covering up his own lack of culture (for in many matters Epicurus stands convicted of ignorance, and even in ordinary converse his speech was not correct). Another reason may have been his hostility² towards Plato and Aristotle and their like who were men of wide learning. It is not unlikely, too, that he was moved by his enmity against Nausiphanes, the disciple of Pyrrho, who kept his hold on many of the young men and devoted himself earnestly to the Arts and Sciences, especially Rhetoric. Epicurus, then,³ though he had been one of this man's disciples, did his best to deny the fact in order that he might be thought to be a self-taught and original philosopher, and tried hard to blot out the reputation of Nausi-

αὐτοῦ φήμην ἐξαλείφειν ἔσπευδε, πολὺς τε ἐγίνετο τῶν μαθημάτων κατήγορος, ἐν οἷς ἐκείνος ἐσεμνύ-
 4 νετο. φησὶ γοῦν ἐν τῇ πρὸς τοὺς ἐν Μυτιλήνῃ φιλοσόφους ἐπιστολῇ "οἶμαι δὲ ἔγωγε τοὺς βαρυστόνους καὶ μαθητὴν με δόξειεν τοῦ πλεύμονος εἶναι, μετὰ μειρακίων τινῶν κραιπαλώντων ἀκούσαντα," νῦν πλεύμονα καλῶν τὸν Ναυσιφάνην ὡς ἀναίσθητον. καὶ πάλιν προβάς πολλά τε κατειπῶν τάνδρὸς ὑπεμφαίνει τὴν ἐν τοῖς μαθήμασι αὐτοῦ προκοπὴν λέγων "καὶ γὰρ ποιηρὸς ἄνθρωπος ἦν καὶ ἐπιτετηδευκῶς τοιαῦτα ἐξ ὧν οὐ δυνατὸν εἰς
 5 σοφίαν ἔλθειν," αἰνισσόμενος τὰ μαθήματα. πλὴν ὁ μὲν Ἐπίκουρος, ὡς ἂν τις εἰκοβολῶν εἴποι, ἀπὸ τοιούτων τινῶν ἀφορμῶν πολεμεῖν τοῖς μαθήμασι ἤξίου, οἱ δὲ ἀπὸ Πύρρωνος οὔτε διὰ τὸ μηδὲν συνεργεῖν αὐτὰ πρὸς σοφίαν, δογματικὸς γὰρ ὁ λόγος, οὔτε διὰ τὴν προσοῦσαν αὐτοῖς ἀπαιδευσίαν· σὺν γὰρ τῷ πεπαιδεῦσθαι καὶ πολυπειρότεροι¹ παρὰ τοὺς ἄλλους ὑπάρχειν φιλοσόφους ἔτι καὶ ἀδιαφόρως ἔχουσι πρὸς τὴν παρὰ τοῖς πολλοῖς
 6 δόξαν. καὶ μὴν οὐδὲ δυσμενείας χάριν τῆς πρὸς τινος (μακρὰν γὰρ αὐτῶν τῆς πραότητός ἐστιν ἢ τοιαύτη κακία), ἀλλὰ τοιοῦτόν τι ἐπὶ τῶν μαθημάτων παθόντες ὅποσον ἐφ' ὅλης ἔπαθον τῆς φιλοσοφίας. καθὰ γὰρ ἐπὶ ταύτην ἦλθον πόθῳ τοῦ τυχεῖν τῆς ἀληθείας, ἰσοσθενεῖ δὲ μάχης² ἀνωμαλία τῶν πραγμάτων ὑπαντήσαντες ἐπέσχον, οὕτω καὶ ἐπὶ τῶν μαθημάτων ὀρμήσαντες ἐπὶ τὴν ἀνάληψιν αὐτῶν, ζητοῦντες καὶ τὸ ἐνταῦθα μαθεῖν ἀληθές,

¹ πολυπειρότεροι cj. Bekk. : πολυπειροτέρους mss., Bekk.

² μάχης: fortasse μάχη καί.

phanes, and became a violent opponent of the Arts and Sciences wherein Nausiphanes prided himself. Thus, in his *Letter to the Philosophers*^a in *Mytilenē*,⁴ Epicurus says, "I quite suppose that 'the bellowers' will fancy that I am even a disciple of 'the Stockfish,' having sat under him in the company of some crapulous striplings"; where he calls Nausiphanes a "Stockfish," as being without sense. And again, after proceeding further and abusing the man at length, he hints at his proficiency in Arts and Sciences when he says—"In fact he was a sorry fellow and exercised himself on matters which cannot possibly lead to wisdom," alluding thereby to Arts and Sciences. Such,⁵ in fact,—as we may conjecture—were the sort of motives which decided Epicurus to make war on the Arts and Sciences. The School of Pyrrho, on the other hand, were not moved either by the view that these subjects are of no help to gaining wisdom (for that is a "dogmatic" assertion) or by any lack of culture attaching to themselves; for in addition to their culture and their superiority to all other philosophers in breadth of experience they are also indifferent to the opinion of the multitude. Nor is the reason to be
 6 found in ill-will towards any (for that sort of vice is wholly alien to their gentle character), but in the fact that in respect of the Arts and Sciences they have met with the same experience as they did in respect of philosophy as a whole. For just as they approached philosophy with the desire of attaining truth,^b but, when faced by the equipollent conflict and discord of things, suspended judgement,—so also in the case of the Arts and Sciences, when they had set about mastering them with a view to learning here also the

^a Cf. Diog. Laert. x. 8.

^b Cf. P.H. i. 12.

τὰς δὲ ἴσας εὐρόντες ἀπορίας, οὐκ ἀπεκρύψαντο.
 7 διόπερ καὶ ἡμεῖς τὴν αὐτὴν τούτοις ἀγωγὴν μετα-
 διώκοντες πειρασόμεθα χωρὶς φιλονεικίας τὰ
 πραγματικῶς λεγόμενα πρὸς αὐτοὺς ἐπιλεξάμενοι
 θεῖναι.

Τὸ μὲν οὖν διδάσκειν ἀπὸ τίνος ἐγκύκλια προσ-
 ηγόρευται μαθήματα καὶ πόσα τὸν ἀριθμὸν ἔστι,
 περιττὸν ἡγοῦμαι, πρὸς ἱκανὴν ἤδη τὴν περὶ
 τούτων ἔχοντας κατήχησιν γινομένης ἡμῖν τῆς
 8 διδασκαλίας. ὁ δὲ ἔστιν ἀναγκαῖον ἐπὶ τοῦ παρ-
 όντος, ὑποδεικτέον ὅτι τῶν λεγομένων πρὸς τὰ
 μαθήματα τὰ μὲν καθολικῶς λέγεται πρὸς πάντα
 τὰ μαθήματα τὰ δ' ἰδίως¹ πρὸς ἕκαστα, καὶ
 καθολικώτερον μὲν τὸ περὶ τοῦ μηδὲν εἶναι μάθημα,
 ἰδιαιτέρον δὲ πρὸς μὲν γραμματικούς, εἰ τύχοι,
 περὶ τῶν τῆς λέξεως στοιχείων, πρὸς δὲ γεω-
 μέτρας περὶ τοῦ μὴ δεῖν ἐξ ὑποθέσεως λαμβάνειν
 τὰς ἀρχάς, πρὸς δὲ μουσικούς περὶ τοῦ μηδὲν
 εἶναι φωνὴν μηδὲ χρόνον. ἴδωμεν δὲ τάξει πρῶτον
 τὴν καθολικωτέραν ἀντίρρησιν.

A'.—Εἰ ἔστι μαθημα

9 Τὴν μὲν οὖν γενομένην παρὰ τοῖς φιλοσόφοις
 περὶ μαθήσεως διαφωνίαν πολλὴν καὶ ποικίλην
 οὐσαν οὐ τοῦ παρόντος ἔστι καιροῦ ἐπικρίνειν·
 ἀπόχρη δὲ παραστήσαι ὡς εἴπερ ἔστι τι μάθημα,
 καὶ τοῦτο ἀνυστὸν ἀνθρώπῳ, τέσσαρα δεῖ προμο-

¹ τὰ δ' ἰδίως scripsi : τὰ δὲ ὡς mss., Bekk.

^a i.e. the Subjects of general, pre-professional, education,

truth, they found difficulties no less serious, which they did not conceal. Accordingly, we too will pursue the same method as they and endeavour, in no spirit of controversy, to select and set forth the substantial arguments against the Professors of culture.

Now I deem it superfluous to explain why the "cyclical studies"^a are so called, and how many of them there are, when our exposition is addressed to those who are already sufficiently instructed in these matters. But it is necessary for our present purpose⁸ to indicate this point,—that of the arguments brought against the Arts and Sciences some are of a general character directed against all these subjects, while others are of a special character, being against the subjects taken separately; thus, the argument that no Art or Science exists is of a more "general" character, whereas more "special" is the argument against, say, the Grammarians concerning the elements of speech, and that against the Geometers denying the right to assume the principles, and that against the Musicians which questions the existence of tone and time. First, then, in point of order let us consider the more general refutation.

CHAPTER I.—DOES A SUBJECT OF LEARNING EXIST?

It is no part of our present task to pronounce upon⁹ the long and varied dispute regarding learning which has been carried on by the philosophers. It is sufficient to lay down that if any subject of learning exists, and if it is attainable by man, four things must including astronomy, geometry, music, grammar, and rhetoric.

λογήσασθαι, τὸ διδασκόμενον πρᾶγμα, τὸν διδάσκοντα, τὸν μαθάνοντα, τὸν τρόπον τῆς μαθήσεως. οὔτε δὲ τὸ διδασκόμενον ἔστιν οὔτε ὁ διδάσκων οὔτε ὁ μαθάνων οὔτε ὁ τρόπος τῆς μαθήσεως, καθάπερ ὑποδείξομεν· οὐκ ἄρα ἔστι τι μάθημα.

B'.—ΠΕΡΙ ΤΟΥ ΔΙΔΑΣΚΟΜΕΝΟΥ

- 10 Καὶ δὴ περὶ τοῦ πρώτου λέγοντες πρώτον φάμεν ὡς εἴπερ διδάσκεται τι, ἤτοι τὸ ὄν τῷ εἶναι διδάσκεται ἢ τὸ μὴ ὄν τῷ μὴ εἶναι. οὔτε δὲ τὸ ὄν τῷ εἶναι διδάσκεται οὔτε τὸ μὴ ὄν τῷ μὴ εἶναι, καθάπερ παραστήσομεν· οὐκ ἄρα διδάσκεται τι. καὶ δὴ τὸ μὴ ὄν τῷ μὴ εἶναι οὐκ ἂν διδάσκοιτο· εἰ γὰρ διδάσκεται, διδακτὸν ἔστι, διδακτὸν δὲ καθ-
- 11 ἐστὼς τῶν ὄντων γενήσεται, καὶ διὰ τοῦτο ἔσται μὴ ὄν τε καὶ ὄν. οὐχὶ δὲ γε δυνατόν ἐστι τὸ αὐτὸ καὶ ὄν [τε] καὶ μὴ ὄν ὑπάρχειν· οὐκ ἄρα τὸ μὴ ὄν τῷ μὴ εἶναι διδάσκεται. τῷ τε μὴ ὄντι οὐδὲν συμβέβηκεν, ᾧ δὲ μηδὲν συμβέβηκεν, οὐδὲ τὸ διδάσκεσθαι συμβήσεται· ἐν γάρ τι ἦν τῶν συμβεβηκότων καὶ τὸ διδάσκεσθαι. τοίνυν οὐδὲ ταύτη
- 12 διδακτὸν ἔστι τὸ μὴ ὄν. καὶ μὴν τὸ διδασκόμενον φαντασίαν κινοῦν εἰς μάθησιν ἡμῖν ἔρχεται, τὸ δὲ μὴ ὄν ἀδυνατοῦν φαντασίαν κινεῖν οὐδὲ διδακτὸν ἔστιν. ἔτι δ' οὐδ' ὡς ἀληθές τὸ μὴ ὄν διδακτὸν ἔστιν· οὔτε γὰρ τῶν μὴ ὄντων ἔστι τἀληθές, οὔτε τι ἀληθές ὡς μὴ ὄν διδακτὸν ἔστιν. εἰ δὲ μηδὲν ἀληθές ὡς μὴ ὄν διδακτὸν ἔστι (τῶν γὰρ ὄντων ἔστι τἀληθές), ἀδίδακτον ἄρα τὸ μὴ ὄν.

* Cf. P.H. iii. 252.

* Cf. P.H. iii. 256 ff.

first be agreed upon^a—the subject taught, the teacher, the learner, the method of learning. But, as we shall show, neither does the subject exist nor the teacher nor the learner nor the method of learning; therefore no subject of learning exists.

CHAPTER II.—CONCERNING THE SUBJECT TAUGHT

Now in dealing with the first point first we assert 10 that if anything is taught either the existent *qua* existent is taught or the non-existent *qua* non-existent.^b But, as we shall establish, neither is the existent *qua* existent taught nor the non-existent *qua* non-existent; therefore nothing is taught. Now the non-existent *qua* non-existent will not be taught; for if it is taught it is teachable, and being teachable it will become an existent, and because of this it 11 will be both non-existent and existent. But it is not possible for the same thing to be both existent and non-existent; therefore the non-existent *qua* non-existent is not taught.—Also, the non-existent has no property, and what has no property will not have the property of being taught; for being taught is one of the properties. Hence, on this ground, too, the non-existent is not capable of being taught.—More- 12 over, that which is taught comes to be learnt by us through exciting a presentation, but the non-existent being unable to excite a presentation is likewise incapable of being taught.—Further, the non-existent cannot be taught as being true; for neither is the true a non-existent, nor is anything true capable of being taught as a non-existent. But if nothing true can be taught as non-existent (since the true is an existent), then the non-existent is incapable of being

- 13 εἰ δὲ μηδὲν ἀληθὲς διδάσκεται, πᾶν τὸ διδασκόμενον ψευδὸς ἔστιν· ὅπερ ἀλογώτατον ὑπάρχει. οὐ τοίνυν τὸ μὴ ὄν διδάσκεται. ἤτοι γὰρ τὸ διδασκόμενον ψευδὸς ἔστιν ἢ ἀληθές. ἀλλὰ ψεῦδος μὲν ἀλογώτατον, τὸ δὲ ἀληθὲς ὄν ὑπῆρχεν. οὐκ
- 14 ἄρα τὸ μὴ ὄν διδακτόν. καὶ μὴν οὐδὲ τὸ ὄν τῷ εἶναι διδακτόν ἔστιν, ἐπειδήπερ τῶν ὄντων πᾶσι φαινομένων ἐπ' ἴσης πάντα ἔσται ἀδίδακτα. ᾧ ἀκολουθήσει τὸ μηδὲν εἶναι διδακτόν· δεῖ γὰρ ὑποκεῖσθαι τι ἀδίδακτον, ἵνα ἐκ τοῦ γινωσκομένου γένηται ἢ τούτου μάθησις. τοίνυν οὐδὲ τὸ ὄν τῷ εἶναι διδάσκεται.
- 15 Ὁ δὲ ὅμοιος τῆς ἀπορίας γενήσεται τρόπος καὶ πρὸς τοὺς ἐροῦντας τὸ οὔτι ἢ τί διδάσκεσθαι. εἰ γὰρ τὸ οὔτι διδάσκοιτο, ἔσται ἢ διδάσκεται τί, καὶ διὰ τοῦτο <τὸ>¹ αὐτὸ τάναντία οὔτι καὶ τί ἔσται, ὅπερ ἦν τῶν ἀδυνάτων. τῷ τε οὔτινι οὐδὲν συμβέβηκεν, διὸ οὐδὲ τὸ διδάσκεσθαι· καὶ γὰρ
- 16 τοῦτο τῶν συμβεβηκότων ἔστιν. οὐ τοίνυν τὸ οὔτι διδάσκεται. κατὰ δὲ τὴν αὐτὴν ἀναλογίαν καὶ τὸ τί τῶν ἀδιδάκτων γενήσεται· εἰ γὰρ διὰ τοῦτο διδακτόν ἔσται ὅτι <τί>² ἔστιν, οὐδὲν ἀδίδακτον
- 17 ἔσται, ᾧ ἔπεται τὸ μηδὲν εἶναι διδακτόν. καὶ μὴν εἰ διδάσκειται τι, ἤτοι διὰ τῶν οὐτινῶν διδαχθήσεται ἢ διὰ τῶν τινῶν. ἀλλὰ διὰ μὲν τῶν οὐτινῶν οὐχ οἷόν τε διδαχθῆναι· ἀνπόστατα γὰρ ἔστι τῇ διανοίᾳ ταῦτα κατὰ τοὺς ἀπὸ τῆς στοᾶς. λείπεται

¹ <τὸ> add. cj. Bekk.

² <τί> add. Heintz.

taught. And if nothing true is taught, everything 13 that is taught is false, which is most irrational. The non-existent, therefore, is not taught. For what is taught is either false or true. But to say it is false is most irrational, and what is true is existent. Therefore the non-existent is not capable of being taught.—Nor, 14 indeed, is the existent *qua* existent capable of being taught, for, since existents are equally evident to all men, they will all be incapable of being taught. Wherefrom it will follow that nothing is capable of being taught; for something untaught must be assumed in order that the learning of it may be derived from what is known. Neither, then, is the existent *qua* existent taught.

The same method of scepticism will be used also 15 against those who will say that either “nothing” is taught or “something.” For if “nothing” should be taught, it will be “something” inasmuch as it is taught, and because of this the same thing will be two opposite things, nothing and something, which is impossible.—Besides, “nothing” has no property, and therefore it has not that of being taught; for this is, in fact, one of the properties. So, then, 16 “nothing” is not taught.—And, by parity of reasoning, “something” also is one of the things which cannot be taught. For if it is to be capable of being taught because it is “something,” nothing will be untaught; wherefrom it follows that nothing is capable of being taught.—Moreover, if something is 17 taught it will be taught by means either of the “nothings” or of the “somethings”; but it is not possible for it to be taught by means of the “nothings,” for these have no reality for the mind according to the Stoics. It remains, then, that learning

οὐν διὰ τῶν τινῶν γίνεσθαι τὴν μάθησιν. ὁ πάλιν
 18 ἀπορὸν ἔστιν· ὡς περ γὰρ αὐτὸ τὸ διδασκόμενον
 κατὰ τοῦτο διδάσκεται καθὸ τί ἔστιν, οὕτως ἐπεὶ
 καὶ τὰ ἐξ ὧν ἡ μάθησις τινὰ ἔστι, γενήσεται
 διδακτά. καὶ ταύτῃ μηδενὸς ὄντος ἀδιδάκτου¹
 ἀναιρεῖται ἡ μάθησις.

Γ'.—ΠΕΡΙ ΣΩΜΑΤΟΣ

19 Ἄλλως τε, ἐπεὶ τῶν τινῶν τὰ μὲν ἔστι σώμα-
 τα τὰ δὲ ἀσώματα, δεήσει τὰ διδασκόμενα τινὰ
 ὄντα ἢτοι σώματα εἶναι ἢ ἀσώματα· οὔτε δὲ
 σώματα δύναται ὑπάρχειν οὔτε ἀσώματα, ὡς
 παραστήσομεν· οὐκ ἄρα ἔστι τινὰ διδασκόμενα.
 20 τὸ μὲν οὖν σῶμα, καὶ μάλιστα κατὰ τοὺς στωικούς,
 οὐκ ἂν εἶη τῶν διδακτῶν· δεῖ γὰρ τὰ διδασκόμενα
 λεκτὰ τυγχάνειν, τὰ δὲ σώματα οὐκ ἔστι λεκτά,
 διόπερ οὐ διδάσκεται. εἴπερ δὲ τὰ σώματα μήτε
 αἰσθητά ἔστι μήτε νοητά, δῆλον ὡς οὐδὲ διδακτά
 γενήσεται. αἰσθητά μὲν οὖν οὐκ ἔστιν, ὡς ἐκ
 21 τῆς ἐνοίας αὐτῶν συμφανές. εἰ γὰρ σύνδοδος ἔστι
 κατὰ ἄθροισμὸν μεγέθους καὶ σχήματος καὶ
 ἀντιτυπίας τὸ σῶμα, ὡς φησὶν Ἐπίκουρος, ἢ τὸ
 τριχῆ διαστατόν, τουτέστι τὸ ἐκ μήκους καὶ
 πλάτους καὶ βάθους, καθάπερ οἱ μαθηματικοὶ
 λέγουσιν, ἢ τὸ τριχῆ διαστατόν μετὰ ἀντιτυπίας,
 ὡς πάλιν Ἐπίκουρος, ἵνα τούτῳ διορίζῃ τοῦ κενοῦ,²
 22 ἢ ὄγκος ἀντίτυπος, ὡς ἄλλοι,—ὅπως δ' ἂν ἐχῆ,
 ἐπεὶ κατὰ σύνοδον πολλῶν ιδιωμάτων νοεῖται, ἢ
 δὲ πλειόνων ἐπισύνθεσις οὐχ ἀπλῆς τίνος καὶ

¹ ἀδιδάκτου Heintz : διδακτοῦ mss., Bekk.

² τοῦ κενοῦ Heintz : τὸ κενόν mss., Bekk.

takes place by means of the "somethings," which too is dubious. For just as the thing taught is itself 18 taught *qua* "something," so also, since the things from which the learning is derived are "somethings," they too will be taught. And thus, since nothing is untaught, learning is abolished.

CHAPTER III.—CONCERNING THE CORPOREAL

Furthermore, since some of the "somethings" are 19 corporeal, others incorporeal, the things taught, being "somethings," will have to be either corporeal or incorporeal^a; but, as we shall establish, they cannot be either corporeal or incorporeal; therefore there are no "somethings" which are taught. Now the 20 corporeal—according to the Stoics in special—will not be capable of being taught; for things taught must be "meanings,"^b but corporeals are not "meanings" and, consequently, are not taught. And if corporeals are neither sensibles nor intelligibles it is plain that they will not be capable of being taught. Now they are not sensibles, as is manifest from our conception of them. For if the corporeal is, as Epi- 21 curus says, a combination of magnitude, shape and solidity massed together,—or, as the Mathematicians assert, that which is three-dimensional, that is to say compounded of length, breadth and depth,—or that which has three-dimensions *plus* solidity (another definition of Epicurus : in order to distinguish it thus from void),—or, as others say, a solid mass,—be this 22 as it may, inasmuch as the corporeal is conceived as a combination of a number of separate factors, and the combining of many is not the operation of a simple

^a Cf. P.H. iii. 255.

^b The Stoic *lekta*; see P.H. ii. 81 n.

ἀλόγου αἰσθήσεως ἐστὶν ἔργον ἀλλὰ λογικῆς
 διανοίας, [· εἰ δὲ λογικῆς διανοίας,]¹ οὐκ ἐστὶ τῶν
 23 αἰσθητῶν τὸ σῶμα. κὰν αἰσθητὸν δὲ [πάλιν] αὐτὸ
 ὑποθώμεθα, πάλιν ἐστὶν ἀδίδακτον. τὸ γὰρ
 αἰσθητὸν πάλιν, ἢ αἰσθητὸν ἐστίν, οὐ διδάσκεται·
 οὐδεὶς γὰρ λευκὸν ὄραν μαθάνει, οὐδὲ γλυκέος
 γεύεσθαι, οὐδὲ θερμοῦ ἀπτεσθαι, οὐκ εὐώδους
 ὀσφραίνεσθαι, ἀλλ' ἐστὶ ταῦτα τῶν ἀδιδάκτων
 24 καὶ φυσικῶς ἡμῖν προσόντων. λείπεται οὖν
 νοητὸν τε λέγειν τὸ σῶμα καὶ ταύτῃ διδακτὸν.
 ὅπως δ' ἂν ἀληθὲς εἴη, σκοπῶμεν. εἰ γὰρ μήτε
 μῆκός ἐστι κατ' ἰδίαν τὸ σῶμα μήτε πλάτος ἢ
 βάθος, τὸ δὲ ἐξ ἀπάντων νοούμενον, ἀνάγκη
 πάντων ἀσωμάτων ὄντων καὶ τὸ ἐξ αὐτῶν
 συστᾶν ἀσώματον νοεῖν καὶ οὐ σῶμα, διὰ δὲ τοῦτο
 25 καὶ ἀδίδακτον. πρὸς τῷ τὸν νοοῦντα τὸ ἐκ τού-
 των συνεστῶς σῶμα πρότερον ὀφείλειν αὐτὰ ταῦτα
 νοεῖν, ἵνα κάκεινο δυνατὸς² ἢ νοεῖν. (ἀλλ' οὐ
 δύναται ταῦτα νοεῖν)³ ἢ γὰρ περιπτωτικῶς αὐτὰ
 νοήσει ἢ κατὰ μετάβασιν ἀπὸ περιπτώσεως. οὔτε
 δὲ περιπτωτικῶς ἀσώματα γὰρ ἐστὶ, καὶ τῶν
 ἀσωμάτων οὐκ ἀντιλαμβάνομεθα περιπτωτικῶς,
 αἰεὶ κατὰ θίξιν γινομένης τῆς περὶ τὴν αἴσθησιν
 ἀντιλήψεως. καὶ μὴν οὐδὲ κατὰ μετάβασιν ἀπὸ
 περιπτώσεως, τῷ μηδὲν ἔχειν αἰσθητὸν ἀφ' οὗ
 μειῶν τις ποιήσεται τούτων ἐπίνοιαν. τοῖνυν
 οὐδὲ τὰ ἐξ ὧν τὸ σῶμα νοεῖν δυνάμενοι πάντως
 οὐδὲ διδάσκειν τοῦτο ἰσχύσομεν.
 26 Ἀλλὰ περὶ μὲν τῆς τοῦ σώματος νοήσεώς τε

¹ [· εἰ . . . διανοίας,] del. Heintz.

² δυνατός cj. Bekk. : δυνατὸν mss., Bekk.

³ (ἀλλ' οὐ δύναται ταῦτα νοεῖν) add. cj. Bekk.

and irrational sense but of a rational intellect, the corporeal will not be one of the sensibles. And even 23 if we assume that it is sensible, yet even so it is still incapable of being taught. For the sensible also, *qua* sensible, is not taught; for no one learns to see what is white, or to taste the sweet, or feel the hot, or smell the odorous, but these sensations are untaught and belong to us naturally.—It remains, then, to say that 24 the corporeal is intelligible and thus capable of being taught. But let us consider what is the truth of the matter. If the corporeal is neither length by itself nor breadth nor depth, but that which is conceived as compounded of them all, then, since these are all incorporeal, one must necessarily conceive the compound formed from them as being incorporeal and not corporeal, and therefore incapable of being taught. Besides, the man who conceives the body 25 compounded of these dimensions must first conceive the dimensions themselves, in order that he may also be able to conceive the body. (But these he cannot conceive;) for he will conceive them either by way of sense-experience or by way of transference from sense-experience. Not, however, by way of experience; for they are incorporeals, and we do not apprehend incorporeals by experience, since sensuous apprehension always takes place by way of contact. Nor yet by way of transference from experience, since one possesses no sense-object by transference from which one might form the conception of the dimensions. Thus, since we cannot even conceive the elements which go to form the corporeal, we certainly shall not be able to teach it.

But we have treated more exactly of the conception 26

καὶ ὑποστάσεως ἐν τοῖς σκεπτικοῖς ὑπεμνήσαμεν ἀκριβέστερον· νυνὶ δὲ ἀποστάντες τούτων τῶν λέγων ἐκεῖνο λέγωμεν ὅτι τῶν σωμάτων κατὰ τὸ ἀνωτάτω διττὴ τις ἐστὶ διαφορὰ· τὰ μὲν γὰρ αὐτῶν αἰσθητὰ καθέστηκε τὰ δὲ νοητά· καὶ εἰ τὸ διδασκόμενόν ἐστὶ σῶμα, πάντως ἤτοι νοητόν 27 ἐστὶν ἢ αἰσθητόν· ἀλλ' οὔτε αἰσθητόν εἶναι δύναται διὰ τὸ πᾶσιν ἐπ' ἴσης ὀφείλειν φαίνεσθαι καὶ πρόδηλον ὑπάρχειν, οὔτε νοητόν διὰ τὸ ἀδηλεῖσθαι καὶ δι' αὐτὸ τοῦτο ἀνεπικρίτως διαφωλεῖσθαι παρὰ πᾶσι τοῖς φιλοσόφοις, τῶν μὲν ἄτομον τοῦτο λεγόντων ὑπάρχειν τῶν δὲ τμητόν, καὶ τῶν τμητόν φαιμένων εἶναι ἐνίων μὲν εἰς ἄπειρον τέμνεσθαι τοῦτο ἀξιούντων, ἐνίων δὲ εἰς ἐλάχιστον καὶ ἀμερὲς καταλήγειν. οὐκ ἄρα διδακτόν ἐστὶ τὸ σῶμα.

28 Καὶ μὴν οὐδὲ τὸ ἀσώματον. πᾶν γὰρ καὶ ὅποιον ἂν τις ἀσώματον λέγη διδάσκεισθαι, εἴαν τε τὴν Πλατωνικὴν ἰδέαν, εἴαν τε τὸ παρὰ τοῖς στωικοῖς λεκτόν, εἴαν τε τόπον ἢ κενὸν ἢ χρόνον ἢ ἄλλο τι τῶν τοιούτων, ἵνα μὴδὲν προπετές περὶ τῆς ὑποστάσεως αὐτῶν λέγωμεν, μὴδ' ἑτέρας σκέψεις ἐφ'¹ ἑτέραις διεξοδευόμεν παριστάντες τὸ ἀνυπόστατον ἐκάστου, [δ] προδήλως μὲν ἐπιζητεῖται καὶ

ἔς τ' ἂν ὕδωρ τε νάη καὶ δένδρεα μακρὰ τεθῆλη

ζητήσεται παρὰ τοῖς δογματικοῖς, τῶν μὲν εἶναι ταῦτα διαβεβαιουμένων τῶν δὲ μὴ εἶναι, τῶν δὲ ἐπεχόντων· τὸ δὲ τὰ ἔτι ἐπίδικα καὶ ἐν μετεωροῖς

¹ ἐφ' scripsi: ἐν mss., Bekk.

and reality of the corporeal in our *Skeptika*^a; so now let us leave aside these criticisms and proceed to state that the most generic distinction amongst corporeals is twofold; some of them are sensibles, others intelligibles. And if the thing taught is corporeal it must certainly be either an intelligible or a sensible. But it cannot be a sensible, since then 27 it ought to be equally apparent to all men and be pre-evident; nor can it be an intelligible owing to the fact that it is non-evident, and for this very reason there is an unsettled controversy about it amongst all the philosophers, some of them saying that it is indivisible, others that it is divisible; while of those who assert its divisibility some claim that it is divided to infinity, others that the division stops at what is minimal and atomic. Therefore the corporeal is not capable of being taught.

Nor, indeed, is the incorporeal. For in every case, 28 whatever be the incorporeal which one declares to be taught,—whether it be the Platonic Idea, or the “lekton” of the Stoics, or place or void or time or anything else of the kind,—without making any rash assertion about the reality of these things, or pursuing divers inquiries one after another in order to prove the non-reality of each of them, we may say that it is manifest that the problem of their reality is a matter of discussion amongst the Dogmatists, and will be so

Long as the waters flow on and the tall trees cease not to burgeon,^b

since some of them stoutly assert that these things exist, others that they do not exist, while still others suspend judgement; thus it is absurd to say that

^a Cf. *Adv. Phys.* i. 359 ff.; *P.H.* iii. 38 ff.

^b Cf. *P.H.* ii. 37 n.

ἀμφισβητήσσει κείμενα ὡς σύμφωνα καὶ ὁμόλογα διδάσκεισθαι λέγειν τῶν ἀτόπων ἐστίν.

29 Εἰ οὖν τῶν ὄντων τὰ μὲν ἐστὶ σώματα τὰ δὲ ἀσώματα, δέδεικται δὲ οὐδέτερα τούτων διδασκόμενα, οὐδὲν διδάσκεται.

Ἐπιχειρητέον δὲ καὶ οὕτως. εἰ διδάσκεται τι, ἤτοι ἀληθές ἐστὶν ἢ ψεῦδος. οὔτε δὲ ψεῦδος διδακτὸν ἐστὶν, ὡς αὐτόθεν ὁμόλογον, οὔτε ἀληθές· τὸ γὰρ ἀληθές ἄπορον, ὡς ἐν τοῖς σκεπτικοῖς ὑπομνήμασι δέδεικται, καὶ τῶν ἀπόρων οὐκ ἐστὶ μάθησις. οὐκ ἄρα ἐστὶ τι τὸ διδασκόμενον. καθόλου τε, εἰ διδάσκεται τι, ἤτοι τεχνικὸν ἐστὶν ἢ ἄτεχνον. καὶ ἄτεχνον μὲν ὃν οὐκ ἐστὶ διδακτὸν, τεχνικὸν δὲ εἴπερ καθέστηκεν, αὐτόθεν μὲν φαινόμενον οὔτε τεχνικὸν ἐστὶν οὔτε διδακτὸν, ἄδηλον δὲ καθεστῶς διὰ τὸ ἀδηλεῖσθαι πάλιν ἐστὶν ἀδίδακτον.

*Ὅτι συναναιρεῖται καὶ ὁ διδάσκων διὰ τὸ μὴ ἔχειν ὁ διδάξει [ἢ ἀδηλόν ἐστιν], ὃ τε μανθάνων διὰ τὸ μὴ ἔχειν ὁ μάθη. ὅμως δ' οὖν καὶ περὶ ἐκατέρου τούτων κατ' ἰδίαν ἐπελθόντες ἀπορήσομεν.

Δ'.—ΠΕΡΙ ΤΟΥ ΔΙΔΑΣΚΟΝΤΟΣ ΚΑΙ ΜΑΝΘΑΝΟΝΤΟΣ

31 Εἰ γὰρ ἐστὶ τις τούτων, ἤτοι ὁ ἄτεχνος τὸν ὁμοίως ἄτεχνον διδάξει ἢ ὁ τεχνίτης τὸν ὁμοίως τεχνίτην ἢ ὁ ἄτεχνος τὸν τεχνίτην ἢ ἀνάπαυιν. οὔτε δὲ ὁ ἄτεχνος τὸν ἄτεχνον δύναται διδάσκειν, ὡς οὐδὲ ὁ τυφλὸς τὸν τυφλὸν ὁδηγεῖν, οὔτε ὁ

things which are undecided and subjects of unsettled controversy are taught, as though they were unanimously agreed upon and undisputed.

If, then, of existents some are corporeal, others 29 incorporeal, and it has been shown that neither of these is taught, nothing is taught.

We may also argue thus: If a thing is taught it is either true or false.^a But neither is the false taught (as the very notion compels us to admit), nor yet the true; for the true is dubious, as has been shown in our *Treatise on Scepticism*, and of things dubious there is no learning. Therefore there is nothing 30 which is taught.—Also, in general, if a thing is taught it is either a matter of art or without art. And if it is without art it cannot be taught; while if it is a matter of art, either it is self-evident and consequently no matter of art nor capable of being taught, or else it is non-evident and thus, too, incapable of being taught because of its being non-evident.

This involves also the abolition of the teacher because he will have nothing to teach, and of the learner because he will have nothing to learn. Notwithstanding, we shall proceed to state the difficulties about each of these separately.

CHAPTER IV.—CONCERNING THE TEACHER AND THE LEARNER

For if anyone of these exists either the non-expert 31 will teach him who is similarly non-expert, or the expert him who is similarly expert, or the non-expert the expert, or *vice versa*.^b But the non-expert cannot teach the non-expert (just as the blind cannot lead

^a Cf. *P.H.* iii. 253.

^b Cf. *P.H.* iii. 259 ff.

τεχνίτης τὸν ὁμοίως¹ τεχνίτην· οὐδέτερος γὰρ αὐτῶν ἐδεῖτο μαθήσεως, καὶ οὐ μᾶλλον οὗτος ἐκείνου ἢ ἐκείνος τούτου χρεῖαν ἔχει πρὸς τὸ μαθάνειν, τοῖς ἴσοις περιουσιαζόμενοι. οὔτε ὁ
 32 ἀτεχνος τὸν τεχνίτην· ὅμοιον γὰρ ὡς εἴ τις λέγοι τὸν βλέποντα ὑπὸ τοῦ πεπηρωμένου οδηγείσθαι. καὶ γὰρ ὁ ἀτεχνος πρὸς τὰ τεχνικὰ τῶν θεωρημάτων πεπηρωμένος οὐκ ἂν δύναιτό τινα διδάσκειν ἃ μηδὲ τὴν ἀρχὴν οἶδεν, καὶ ὁ τεχνίτης διαβλέπων ἐν τοῖς τεχνικοῖς θεωρήμασι καὶ γνώσιν αὐτῶν
 33 ἐσχηκῶς οὐ δεήσεται τοῦ διδάζοντος.λείπεται οὖν τὸν τεχνίτην τοῦ ἀτέχνου διδάσκαλον εἶναι λέγειν. ὁ τῶν προτέρων ἐστὶν ἀποπώτερον· ὁ τε γὰρ τεχνίτης συνηπόρηται ἡμῖν τοῖς τῆς τέχνης θεωρήμασιν ἐν τῷ σκεπτικῷ τόπῳ, ὁ τε ἀτεχνος οὔτε ὅτε ἐστὶν ἀτεχνος δύναται γενέσθαι τεχνίτης, οὔτε ὅτε ἐστὶ τεχνίτης ἐτι γίνεται τεχνίτης ἀλλ'
 34 ἐστίν. ἀτεχνος μὲν γὰρ ὢν ὁμοίός ἐστι τῷ ἐκ γενετῆς τυφλῷ ἢ κωφῷ, καὶ ὃν τρόπον οὗτος οὐδέποτε ἢ εἰς χρωμάτων ἢ εἰς φωνῶν ἔννοιαν ἔλθειν πέφυκεν, οὕτως οὐδὲ ὁ ἀτεχνος, ἐφ' ὅσον ἐστὶν ἀτεχνος, τετυφλωμένος καὶ κεκωφωμένος πρὸς τὰ τεχνικὰ θεωρήματα οὔτε ἰδεῖν οὔτε ἀκοῦσαί τι τούτων οἷός τε ἐστίν· τεχνίτης δὲ γενόμενος οὐκέτι διδάσκεται ἀλλὰ δεδίδακται.
 35 Μετακτέον δὲ τὰς ἀπορίας ἐκ τῶν περὶ μεταβολῆς καὶ πάθους γενέσεως τε καὶ φθορᾶς προεγκεχειρημένων ἡμῖν ἐν ταῖς πρὸς τοὺς φυσικοὺς ἀντιρρήσεσι. τὰ δὲ νῦν συγχωρήσαντες τοῖς ἀπὸ τῶν μαθημάτων εἶναι τι τὸ διδασκόμενον πρᾶγμα

¹ τὸν ὁμοίως scripsi: ὁμοίως τὸν mss., Bekk.

the blind), nor the expert the similarly expert; for neither of these requires to learn, and this one has no more need of learning than that one, nor that one than this one, both being equally full of knowledge. Nor can the non-expert teach the expert; for that 32 would be like saying that the man who has eyesight is led along by the man who has none. For in fact the non-expert is blind as regards the technical principles, and thus will be unable to teach things of which he knows nothing at all; while the expert, having clear vision of the technical principles and having gained knowledge of them, will not require a teacher.—It remains, then, to say that the expert 33 teaches the non-expert. But this is even more absurd than the former suppositions; for along with the principles of his art the existence of the expert himself has been shown in our Sceptic text-book to be open to doubt, and the non-expert neither can become an expert while he is non-expert, nor when he is an expert does he any longer become an expert, but is one. For if he is non-expert he is like a man blind 34 or deaf from birth, and just as such a man cannot ever form a notion of colours or of sounds, so the non-expert, in so far as he is non-expert, being blind and deaf to the technical principles is incapable of seeing or hearing any of them; and if he has become an expert he is no longer being taught but has been taught.

We may also borrow criticisms from those we have 35 already brought forward in our arguments against the Physicists concerning change and affection and becoming and perishing.^a For the present let us concede to the Professors that there exists a subject

^a Cf. *P.H.* iii. 102 ff., *Adv. Phys.* ii. 39 ff.

καὶ εἶναι τινα τὸν ὑφηγούμενον, ὡσαύτως δὲ καὶ τὸν μαθάνοντα, τὸ μετὰ τοῦτο ἀπαιτῶμεν τὸν
 36 τρόπον τῆς μαθήσεως. ἢ γὰρ ἐναργεῖα γίνεται ἢ λόγῳ τὰ τῆς διδασκαλίας. ἀλλὰ τούτων ἢ μὲν ἐναργεῖα τῶν δεικτῶν ἐστί, τὸ δὲ δεικτὸν φαινόμενον, τὸ δὲ φαινόμενον, ἢ φαίνεται, κοινῶς πᾶσι ληπτόν, τὸ δὲ κοινῶς πᾶσι ληπτὸν ἀδίδακτον· οὐκ
 37 ἄρα τὸ ἐναργεῖα δεικτὸν διδακτὸν. ὁ δὲ λόγος ἥτοι σημαίνει τι ἢ οὐ σημαίνει. καὶ μηδὲν μὲν σημαίνων οὐδὲ διδάσκαλός τινός ἐστι, σημαίνων δὲ ἥτοι φύσει σημαίνει τι ἢ θέσει. καὶ φύσει μὲν οὐ σημαίνει διὰ τὸ μὴ πάντας πάντων ἀκούειν, Ἑλλήνας βαρβάρων καὶ βαρβάρους Ἑλλήνων ἢ
 38 Ἑλλήνας Ἑλλήνων ἢ βαρβάρους βαρβάρων· θέσει δὲ εἶπερ σημαίνει, δῆλον ὡς οἱ μὲν προκατειληφότες τὰ καθ' ὧν αἱ λέξεις κείνται καὶ ἀντιλήφονται τούτων, οὐ τὸ ἀγνοούμενον ἐξ αὐτῶν διδασκόμενοι, τὸ δ' ὅπερ ἤδεισαν ἀνανεούμενοι, οἱ δὲ χρήζοντες τῆς τῶν ἀγνοουμένων μαθήσεως οὐκέτι.

Εἰ οὖν οὔτε τὸ διδασκόμενον ἐστὶν οὔτε ὁ διδάσκων οὔτε ὁ μαθάνων οὔτε ὁ τρόπος τῆς μαθήσεως, δῆλον ὡς οὐδὲ μάθημα, οὐδὲ ὁ μαθήματος προσεστώς. ἀλλ' ἐπεὶ οὐ καθολικὴν μόνον πρὸς πάντας
 39 τοὺς μαθηματικοὺς ὑπεσχόμεθα ποιήσασθαι τὴν ἀντίρρησιν ἀλλὰ καὶ εἰδικωτέραν πρὸς ἕκαστον, ὑποτιθέμενοι τὸ εἶναι τι μάθημα καὶ δυνατὴν ὑπάρχειν τὴν μάθησιν, σκοπῶμεν εἰ καὶ τὸ ἐκάστον

taught and that the instructor exists and likewise the learner, and let us next investigate the method of learning. Now teaching takes place either by means 36 of sense-evidence or by means of speech. But of these sense-evidence is concerned with ostensible things, and the ostensible is apparent, and the apparent, in so far as it appears, is perceptible by all alike, and what is perceptible by all alike is incapable of being taught; therefore what is shown by sense-evidence is not capable of being taught.—And speech 37 either signifies or does not signify something. Now if it signifies nothing, neither does it teach anything; while if it signifies, it signifies a thing either by nature or by convention. But it does not signify by nature since all men do not understand the speech of all,—Greeks that of barbarians and barbarians that of Greeks, or Greeks that of Greeks or barbarians that of barbarians.* And if it signifies by convention, it is 38 plain that those who have apprehended beforehand the objects to which the terms are conventionally applied will also understand those terms, not that they are taught by them what they did not know, but rather as reviving what they did know; but those who lack learning about the things not known will fail to do so.

If, then, the subject taught does not exist, nor the teacher, nor the learner, nor the method of learning, it is clear that neither does the subject learnt exist nor he who presides over that subject. But since we 39 undertook not only to construct a general argument against all the Professors but also a special one against each of them, let us assume that a subject of learning exists and that learning is possible, and consider whether the claims made regarding each subject are

* Cf. P.H. ii. 214.

μαθήματος ἐπάγγελμα δυνατόν ἐστι, λαμβάνοντες
 πρὸς τοὺς ἐλέγχους μὴ πάντα τὰ παρὰ τοῖς ἐλεγ-
 χομένοις λεγόμενα (τοῦτο γὰρ σὺν τῷ περισκελεῖ
 40 καὶ ἀμέθοδον, ἐπεὶ τάχα καὶ ἀδύνατόν ἐστι) μήτε
 δ' ἐκ πάντων τὰ ὁποιοῦν (τοῦτο γὰρ ἴσως οὐδὲ
 καθικνεῖται αὐτῶν), ἀλλὰ τὰ ὧν ἀναιρουμένων
 συναναιρεῖται πάντα. καὶ ὃν τρόπον οἱ πόλιν
 λαβεῖν σπεύδοντες ἐκείνων μάλιστα ἐγκρατεῖς
 γίνεσθαι σπουδάζουσιν ὧν ἀλότων καὶ ἢ πόλιν
 ἐάλωκεν, οἷον τεῖχη καθαιροῦντες ἢ στόλον ἐπι-
 πράντες ἢ τὰς εἰς τὸ ζῆν ἀφορμὰς ἀποκλείοντες
 οὕτω καὶ ἡμεῖς τοῖς ἀπὸ τῶν μαθημάτων δι-
 αγωνιζόμενοι ταῦτ' αὐτὰ πειράζωμεν ἐξ ὧν αὐτοῖς
 σώζεται τὰ πάντα, οἷον ἢ ἀρχὰς ἢ τὰς ἐκ τῶν
 ἀρχῶν καθολικὰς μεθόδους ἢ τὰ τέλη· ἐν τούτοις
 γὰρ ἢ ἐκ τούτων συνίσταται πᾶν μάθημα.

Α'.—ΠΡΟΣ ΓΡΑΜΜΑΤΙΚΟΥΣ

41 Ἀρχέτω δὲ ἡμῖν εὐθύς ἢ πρὸς τοὺς γραμματι-
 κούς ζήτησις, πρῶτον μὲν ἐπεὶ ἀπὸ νηπιότητος
 σχεδὸν καὶ ἐκ πρώτων σπαργάνων γραμματικῆ
 παραδιδόμεθα, ἐστὶ τε αὕτη οἷον ἀφετήριόν τι
 πρὸς τὴν τῶν ἄλλων μάθησιν, εἶθ' ὅτι παρὰ πάσας
 θρασύνεται τὰς ἐπιστήμας, σχεδὸν τι τὴν τῶν
 42 Σειρήνων ὑπόσχεσιν ὑπισχνουμένη. ἐκείναι μὲν
 γὰρ εἰδύϊαι ὅτι φύσει φιλοπευθῆς ἐστὶν ἄνθρωπος
 καὶ πολὺς αὐτῷ κατὰ στέρνων τῆς ἀληθείας ἡμερος
 ἐντέτηκεν, οὐ μόνον θεσπεσίους μέλεσι κηλήσειν
 24

also possible ; and let us take as the matter for our
 refutation not all the statements made by those
 whom we are refuting (for this would be unsystematic
 as well as inordinate, and probably impossible also),
 nor yet any random selection out of them all (for this 40
 perhaps would fail to reach all of them), but those
 statements the destruction of which involves the
 destruction of all. And just as those who are striving
 to take a city are anxious most of all to make them-
 selves masters of those things the capture of which
 ensures also their capture of the city—such as break-
 ing down their walls or setting fire to their equipment
 or cutting off their food-supplies,—so let us, too, in
 our conflict with the Professors attack those very
 points upon which all their safety depends, such as
 their principles, or the general arguments which are
 derived from the principles, or their conclusions ; for
 by these or from these every art and science is
 formed.

CHAPTER I.—AGAINST THE GRAMMARIANS

Let us begin at once with our criticism of the 41
 Professors of Letters (or Grammarians), firstly be-
 cause we are handed over to the study of letters
 well-nigh from infancy and our first swaddling clothes,
 and this art is as it were the starting-point for our
 learning of all the others, and next because it puffs
 itself up above all the sciences, almost promising the
 Sirens' promise. For they, being aware that man is 42
 inquisitive by nature and that there is implanted in
 his breast a great longing for the truth, promise not
 only to charm those who are sailing by with wondrous

¹ ταῦτ' αὐτὰ cj. Bekk. : τὸ αὐτὸ mss., Bekk.

τοὺς παραπλέοντας ὑπιοχνοῦνται ἀλλὰ καὶ τὰ ὄντα αὐτοὺς διδάξεν. φασὶ γάρ

δεῦρ' ἄγ' ἰών, πολυαῖν' Ὀδυσσεῦ, μέγα κῦδος
'Αχαιῶν,

νῆα κατάστησον, ἵνα νωιτέρην ὄπ' ἀκούσης.
οὐ γάρ πώ τις τῆδε παρέπλω νηὶ μελαίνῃ
πρὶν γ' ἡμέων μελίγηρυν ἀπὸ στομάτων ὄπ'
ἀκούσῃ,

ἀλλ' ὃ γε περιψάμενος νεῦται καὶ πλείονα εἰδώς.
ἴδμεν γάρ τοι πάνθ' ὅσ' ἐνὶ Τροίῃ εὐρείῃ
'Αργεῖοι Τρῶές τε θεῶν ἰότητι μόγησαν,
ἴδμεν δ' ὅσσα γένηται ἐπὶ χθονὶ πουλυβοτείρῃ.

43 ἡ δὲ γραμματικὴ, σὺν τῶν τὰ ἐκ τῶν μύθων τε καὶ ἱστοριῶν λόγῳ διορίζειν, καὶ τὸ περὶ τὰς διαλέκτους καὶ τεχνολογίας καὶ ἀναγνώσεις πραγματικὸν ἀύχουσα πολὺν ἑαυτῆς ἐργάζεται τοῖς ἀκούουσι πόθον. ἀλλ' ἵνα μὴ παρὰ θύραν πλανᾶσθαι δοκῶμεν, ὑποδεικτέον πόσαι τέ εἰσι γραμματικαὶ καὶ περὶ τίνος αὐτῶν πρόκειται ζητεῖν.

B'.—ΠΟΣΑΧΩΣ ΛΕΓΕΤΑΙ ΓΡΑΜΜΑΤΙΚΗ

44 Γραμματικὴ τοῖνυν λέγεται κατὰ ὁμωνυμίαν κοινῶς τε καὶ ἰδίως, καὶ κοινῶς μὲν ἡ τῶν ὁποιωνδήποτεῦν γραμμάτων εἰδησις, εἴαν τε Ἑλληνικῶν εἴαν τε βαρβαρικῶν, ἣν συνήθως γραμματιστικὴν καλοῦμεν, ἰδιαιτερον δὲ ἡ ἐντελής καὶ τοῖς περὶ Κράττηα τὸν Μαλλώτην Ἀριστοφάνην τε καὶ
45 Ἀρίσταρχον ἐκπονηθεῖσα. δοκεῖ δὲ τούτων ἕκα-

* Homer, *Od.* xii. 184 ff.

music but also to teach them real happenings. Here is what they say ^a—

Come hither now, Odysseus, far-famed, great pride of Achaeans :

Stay thy ship on its course and hark to the words we utter. No man ever as yet has passed this point in his black ship Ere he has lent an ear to the honey-sweet sound of our singing ;

So he departs over-joy'd, and richer, to boot, in knowledge, Seeing that we know all that the Argive hosts and the Trojans

Suffered in broad Troy-land by the dispensation of Heaven ; Nothing, in sooth, is done on the bountiful Earth but we know it.

So the Art of Letters, by boasting of its dealing ⁴³ systematically with dialects and rules of style and recitations, as well as the logical treatment of the contents of myths and histories, excites in the listeners a great desire for itself. But lest we should seem to be wandering past the door, we must indicate how many Arts of Letters there are and which of them we propose to investigate.

CHAPTER II.—THE VARIOUS MEANINGS OF THE TERM “ART-OF-LETTERS”

The term “Art-of-letters” is used, by homonym, ⁴⁴ both in a general and in a special sense. In the general sense it means the knowledge of letters of any and every kind, either Greek or barbarian, which we customarily call “grammatic” ; in the special sense it is applied to the perfected art as elaborated by Crates of Mallus, Aristophanes and Aristarchus.^b

^b Aristarchus founded a School of Grammar at Alexandria (*circa* 150 B.C.) : he was a pupil of Aristophanes of Byzantium. Crates of Mallus, in Cilicia, founded the Pergamene School, in opposition to the Alexandrian.

τέρα καὶ ἀπὸ τινος ἐτύμου φερωνύμως προσηγο-
 ρεῦσθαι. ἡ μὲν γὰρ πρώτη ἀπὸ τῶν γραμμάτων
 οἷς σημειούμεθα τὰς ἐνάρθρους φωνάς, ἡ δὲ δευτέρα
 τάχα μὲν, ὡς τινες ἠξιώκασι, διατατικώτερον ἀπὸ
 τῆς πρώτης· μοῖρα γάρ ἐστιν (αὕτη)¹ αὐτῆς, καὶ
 ὃν τρόπον ἰατρικὴ εἴρηται μὲν τὸ παλαιὸν ἀπὸ
 τῆς τῶν ἰῶν ἐξαιρέσεως, ἐπικατηγορεῖται δὲ νῦν
 καὶ τῆς τῶν ἄλλων παθῶν ἀνασκευῆς πολλῶ
 46 τεχνικώτερας οὔσης, καὶ ὡς γεωμετρία ἔσπακε
 μὲν τὴν κλήσιν ἀρχικῶς ἀπὸ τῆς κατὰ τὴν γῆν
 καταμετρήσεως, τάττεται δὲ ἐπὶ τοῦ παρόντος
 καὶ κατὰ τῆς τῶν φυσικωτέρων θεωρίας, οὕτω
 καὶ ἡ τέλειος γραμματικὴ ἀπὸ τῆς τῶν γραμμάτων
 εἰδήσεως κατ' ἀρχὰς ὀνομασθεῖσα διετάρθη καὶ
 ἐπὶ τὴν ἐν τοῖς ποικιλωτέροις αὐτῶν καὶ τεχνικω-
 47 τέροις θεωρήμασι γινώσιν. τάχα δέ, ὡς φασὶν
 οἱ περὶ τὸν Ἀσκληπιάδην, καὶ αὕτη ἀπὸ μὲν
 γραμμάτων ὀνόμασται, οὐκ ἀπὸ τούτων δὲ ἀφ' ὧν
 καὶ ἡ γραμματιστικὴ, ἀλλ' ἐκείνη μὲν, ὡς ἔφην,
 ἀπὸ τῶν στοιχείων, αὕτη δὲ ἀπὸ τῶν συγγραμ-
 μάτων περὶ οἷς πονεῖται. γράμματα γὰρ καὶ
 ταῦτα προσηγορεύετο, καθὰ καὶ δημόσια καλοῦμεν
 γράμματα, καὶ πολλῶν τινὰ γραμμάτων ἐμπειρον
 ὑπάρχειν φασί, τοῦτέστιν οὐ τῶν στοιχείων ἀλλὰ
 48 τῶν συγγραμμάτων. καὶ Καλλίμαχος δέ, ποτὲ
 μὲν τὸ ποίημα καλῶν γράμμα ποτὲ δὲ τὸ κατα-
 λογάδην σύγγραμμα, φησὶ

Κρεωφύλου πόνος εἰμί, δόμῳ ποτὲ θεῖον αἰοιδὸν
 δεξαμένου, κλείω δ' Εὐρύτων ὄσσο' ἔπαθεν
 καὶ ξανθὴν Ἰόλειαν, Ὀμήρειον δὲ καλοῦμαι
 γράμμα. Κρεωφύλω, Ζεῦ φίλε, τοῦτο μέγα.

¹ (αὕτη) addidi.

In both cases the sense is evidently derived from the 45
 original meaning of the term " letters " ; for the first
 sense comes from the letters by which we represent
 the articulate sounds, and the second perhaps, as
 some have maintained, from the first by extension ;
 for the first is a part of it, and just as *iatrikḗ* (medical
 art) was so named in olden times from the extraction
 of *ioi* (poisons), but is now applied to the curative
 treatment of all other ailments as well, which is a
 much higher form of art,—and just as geometry 46
 derived its name originally from the mensuration of
gḗ (land), but is at present applied also to theory con-
 cerned with more fundamental entities,—so also the
 perfected Art of letters, after being named originally
 from the knowledge of letters, was extended so as to
 comprise acquaintance with the more complex and
 technical theories about them. But perhaps, as 47
 Asclepiades says, this art, too, was named from
 letters, though not from the same letters as " gram-
 matic " ; for while the latter takes its name, as I
 said, from the elements, the former takes its name
 from the compositions with which it deals. For these,
 too, were called " letters," just as we speak of
 " public letters," and say that a man is skilled in
 many letters, meaning not the elements but the
 compositions. Callimachus,^a too, calling the poem 48
 in one place, and in another the prose composition, a
 letter, says—

Work am I of Crēophylus who welcomed once to his
 homestead

Homer, the singer divine. Woeful the tale I relate
 How fared blond Ioleia and Eurytus. But they do call
 me

Homer's letter! By Jove! fame for the author is this!

^a Callim. *Epigr.* 7 and 25.

καὶ πάλιν

εἶπας " ἦλιε χαῖρε " Κλεόμβροτος Ἀμπρακιώτης
ἦλατ' ἀφ' ὑψηλοῦ τείχεος εἰς αἶθρον,
ἄξιον οὐδ' ἐν ἰδῶν θανάτου τέλος, ἀλλὰ Πλάτωνος
ἐν τῷ περὶ ψυχῆς γράμμ' ἀναλεξάμενος.

- 49 Πλὴν διττῆς οὔσης γραμματικῆς, τῆς μὲν τὰ στοιχεῖα καὶ τὰς τούτων συμπλοκάς διδάξεν ἐπαγγελλομένης καὶ καθόλου τέχνης τινὸς οὔσης τοῦ γράφειν τε καὶ ἀναγινώσκειν, τῆς δὲ βαθυτέρας παρὰ ταύτην δυνάμεως, οὐκ ἐν ψιλῇ γραμμάτων γνώσει κειμένης ἀλλὰ καὶ τῷ ἐξετάζειν τὴν εὔρεσιν αὐτῶν καὶ τὴν φύσιν, ἔτι δὲ τὰ ἐκ τούτων συνεστῶτα λόγου μέρη καὶ εἴ τι τῆς αὐτῆς ιδέας θεωρεῖται, πρόκειται νῦν ἀντιλέγειν οὐ τῇ προτέρα· συμφώνως γὰρ κατὰ πάντας ἐστὶ χρειώδης. ἐν οἷς θετέον καὶ τὸν Ἐπίκουρον, εἰ καὶ δοκεῖ τοῖς ἀπὸ τῶν μαθημάτων διεχθραίνειν· ἐν γοῦν τῷ περὶ δώρων καὶ χάριτος ἰκανῶς πειρᾶται διδάσκειν ὅτι ἀναγκαῖόν ἐστι τοῖς σοφοῖς μανθάνειν γράμματα.
- 50 καὶ ἄλλως, εἴπαιμεν ἂν ἡμεῖς, οὐ σοφοῖς μόνον ἀλλὰ καὶ πᾶσιν ἀνθρώποις. ὅτι γὰρ πάσης τέχνης
- 51 τὸ τέλος εὐχρηστόν ἐστι τῷ βίῳ, φανερόν. τῶν δὲ τεχνῶν αἱ μὲν προηγουμένως ὑπὲρ τῆς τῶν ὀχληρῶν ἐκκλίσεως παρήλθον, αἱ δὲ ὑπὲρ τῆς τῶν ὠφελίμων εὑρέσεως. καὶ ἐστὶ τῆς μὲν πρώτης ιδέας ἰατρικῆ, παιωνίς οὔσα καὶ λυσίπονος τέχνη, τῆς δὲ δευτέρας κυβερνητικῆ· τῆς γὰρ ἀπὸ τῶν ἄλλων ἐθνῶν χρείας μάλιστα δεόνται πάντες
- 52 ἄνθρωποι. ἐπεὶ οὖν ἡ γραμματιστικὴ διὰ τῆς τῶν γραμμάτων ἐπινοίας ἵαται μὲν ἀργότατον πάθος, τὴν λήθην, συνέχει δὲ ἀναγκαιοτάτην

And again—

Crying "Farewell, O Sun!" Cleombrotus, born in Ambracia,
Leapt from the lofty wall, down to the house of the dead;
Naught had befallen him worthy of death, 'twas his reading of Plato
Mov'd him so—Plato's letter "Concerning the Soul."

However, as the Art of Letters is twofold,—the 49 one promising to teach the elements and their combinations and being in general an art of writing and reading, and the other being in comparison a more profound faculty and not consisting merely in the bare knowledge of letters but also in the investigation of their discovery and their nature, and in addition the parts of speech composed of letters and all other matters of the same kind—it is not our purpose now to controvert the former; for that it is useful is agreed by all men. And amongst them we must place Epicurus, although he seems to be bitterly hostile to the Professors of Arts and Sciences; certainly in his book *On Gifts and Gratitude* he definitely tries to prove that it is necessary for the wise to learn letters. Necessary moreover, as we 50 should say, not for the wise only but for all men. For it is plain that the end aimed at by every art is very useful for life. Some arts have been introduced 51 mainly with the object of averting things hurtful, others with that of discovering things beneficial; medicine is an example of the first kind, being a curative and pain-relieving art, and navigation of the second, for all men are very much in need of the assistance of the other nations. Since then "gramma- 52 tistic" by its comprehension of letters cures a most inactive disease, forgetfulness, and contains a most

ἐνέργειαν, τὴν μνήμην, τὰ πάντα ἐπ' αὐτῇ κείται σχεδόν, καὶ οὔτε ἄλλους τι ἔνεστι τῶν ἀναγκαίων διδάσκειν, οὔτε παρ' ἄλλου μαθεῖν τι τῶν λυσιτελῶν χωρὶς αὐτῆς δυνατὸν ἔσται. οὐκοῦν τῶν χρησι-
 53 μωτάτων ἢ γραμματιστικῇ. ἀμέλει γοῦν οὐδὲ θελήσαντες ταύτην δυνασόμεθα ἀπεριτρέπτως ἀνελεῖν· εἰ γὰρ αἱ ἀχρηστοὶ διδάσκουσαι τὴν γραμματιστικὴν ἐπιχειρήσεις εἰσὶν εὐχρηστοί, οὔτε δὲ μνημονευθῆναι οὔτε τοῖς ἀθίσι παραδοθῆναι χωρὶς αὐτῆς δύναται, χρεώδης ἔστιν ἢ γραμματιστικῇ. καίτοι δόξαι ἂν τισιν ἐπὶ τῆς ἐναντίας εἶναι προλήψεως ὁ προφήτης τῶν Πύρρωνος λόγων Τίμων ἐν οἷς φησὶ

γραμματικῇ, τῆς οὐ τις ἀνασκοπῇ οὐδ' ἀνάβρῃσι ἀνδρὶ διδασκομένῳ Φοινικικὰ σήματα Κάδμου.

54 οὐ μὴν οὕτως ἔχειν φαίνεται. τὸ γὰρ ὑπ' αὐτοῦ λεγόμενον οὐκ ἔστι τοιοῦτον κατ' αὐτῆς τῆς γραμματιστικῆς, καθ' ἣν διδάσκεται τὰ Φοινικικὰ σήματα Κάδμου, τὸ "οὐδεμίαν ἔστιν ἀνασκοπῇ οὐδ' ἀνάβρῃσι"· πῶς γάρ, εἰ διδάσκεται τις αὐτῆν, οὐδεμίαν ἔσχηκεν ἐπιστροφὴν αὐτῆς; ἀλλὰ μάλλον τοιοῦτό φησὶ "διδασθέντι τὰ Φοινικικὰ σήματα Κάδμου οὐδεμιᾶς ἄλλης παρὰ τοῦτό ἐστι γραμματικῆς ἐπιστροφῇ," ὅπερ καταστρέφει οὐκ εἰς τὸ ἀχρηστεῖν ταύτην τὴν ἐν τοῖς στοιχείοις καὶ τῷ δι' αὐτῶν γράφειν τε καὶ ἀναγινώσκειν θεωρου-
 55 μένην, ἀλλὰ τὴν πέρπερον καὶ περιεργότεραν. ἢ μὲν γὰρ τῶν στοιχείων χρῆσις ἤπειγεν εἰς τὴν τοῦ βίου διεξαγωγὴν, τὸ δὲ μὴ ἀρκεῖσθαι τῇ ἐκ τῆς παρατηρήσεως τοῦτων παραδόσει, προσεπιδεικνύει δὲ ὡς τάδε μὲν ἔστι φωνάεντα τῇ

necessary activity, memory, almost everything depends upon it, and without it it is impossible to teach any necessary thing to others, and it will be impossible to learn anything profitable from another. Thus the "grammaticistic" is one of the most useful arts. And in any case even if we wished we should
 53 not be able to abolish it without upsetting ourselves; for if the arguments which show that "grammaticistic" is useless are themselves useful but can neither be remembered nor passed on to posterity without it, then "grammaticistic" is useful. Yet it might be thought by some that Timon, the expounder of Pyrrho's views, is of the contrary opinion when he says—

Grammar's an art that a man need neither heed nor consider When he is still being taught the Punic symbols of Cadmus.

This, however, does not appear to be the case. For the
 54 phrase he uses, "he need neither heed nor consider," is not aimed against the actual "grammaticistic" by which the Punic symbols of Cadmus are taught; for if a man is being taught it, how can he have paid no attention to it? What he means is rather this,— "when a man has been taught the Punic symbols of Cadmus he need pay no attention to any further art of letters"; and this does not refer to the uselessness of the art which is found to deal with the elements and with employing them in writing and reading, but of that which is boastful and needlessly inquisitive. For
 55 while the handling of the elements contributes to the conduct of life, not to be contented with what is given by the observation of the elements and attempting further to show that some of them are naturally

φύσει τάδε δὲ σύμφωνα, καὶ τῶν φωναέντων τὰ μὲν φύσει βραχέα τὰ δὲ μακρὰ τὰ δὲ δίχρονα καὶ κοινὰ μήκους τε καὶ συστολῆς, καὶ καθόλου τὰ λοιπὰ περὶ ὧν οἱ τετυφωμένοι τῶν γραμματικῶν
56 διδάσκουσιν (ἄχρηστόν ἐστιν.)¹ ὥστε τῇ μὲν γραμματιστικῇ πρὸς τῷ μηδὲν ἐγκαλεῖν ἔτι καὶ τὰς ἀνωτάτω χάριτας ὀφείλομεν, τῇ δὲ λειπομένῃ προσάπτομεν τοὺς ἐλέγχους. τὸ δὲ εἶπε ὑγιῶς εἶτε τοῦναντίον μάθοιμεν ἂν προσεξαπλώσαντες αὐτῆς τὸν χαρακτῆρα.

Γ'.—ΤΙ ΕΣΤΙ ΓΡΑΜΜΑΤΙΚΗ

57 Ἐπεὶ οὔτε ζητεῖν οὔτε ἀπορεῖν ἔστι κατὰ τὸν σοφὸν Ἐπίκουρον ἀνευ προλήψεως, εἴ ἂν ἔχοι πρὸ τῶν ὄλων σκέψασθαι τί τ' ἐστὶν ἡ γραμματικὴ, καὶ εἰ κατὰ τὴν ἀποδιδιομένην ὑπὸ τῶν γραμματικῶν ἔννοιαν δύναται συστατὸν τι καὶ ὑπαρκτὸν νοεῖσθαι μάθημα. Διονύσιος μὲν οὖν ὁ Θραξ ἐν τοῖς παραγγέλμασί φησι "γραμματικὴ ἐστὶν ἐμπειρία ὡς ἐπὶ τὸ πλεῖστον τῶν παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων," συγγραφεῖς καλῶν, ὡς ἐστὶν ἐκ τῆς πρὸς τοὺς ποιητὰς ἀντεμφάσεως πρόδηλον, οὐκ ἄλλους τινὰς ἢ τοὺς καταλογάδην
58 πραγματευσαμένους. τὰ τε γὰρ παρὰ τοῖς ποιηταῖς ὁ γραμματικὸς ἐρμηνεύειν φαίνεται, καθάπερ Ὀμήρῳ τε καὶ Ἡσιόδῳ Πινδάρῳ τε καὶ Εὐριπίδῃ καὶ Μενάνδρῳ καὶ τοῖς ἄλλοις, τὰ τε παρὰ τοῖς συγγραφεύσιν, οἷον Ἡροδότῳ καὶ Θουκυδίδῃ καὶ
59 Πλάτῳ, ὡς ἴδιον ἔργον μετέρχεται. παρὸ καὶ οἱ χαριέντες ἐξ αὐτῶν περὶ πολλῶν ἐπραγματεύ-

¹ (ἄχρηστόν ἐστιν.) addidi.

vowels, others consonants, and that of the vowels some are naturally short, others long, others doubtful and indifferently long or short, and in general all the other rules that are taught by the conceited Grammarians (are unprofitable proceedings). Hence, 56 while we not only have no fault to find with "Grammatic" but even owe it the warmest thanks, we bring our critical weapons to bear on the rest of the Art of Letters. Whether we do so rightly or wrongly, we shall learn when we have further explained its character.

CHAPTER III.—A DESCRIPTION OF "THE ART OF GRAMMAR"

Since, according to the sage Epicurus, it is not 57 possible either to inquire or to doubt without a preconception, it will be well first of all to consider what "Grammatic" (or the Art of Grammar) is and whether a systematic and real art or science can be conceived on the lines of the conception put forward by the Grammarians. Now Dionysius "the Thracian" ^a says in his *Directions* that "Grammar" is mainly expertness regarding the language of poets and composers," meaning by "composers" (as is plain from its contrast with "poets") none others than the writers in prose. For the Grammarian 58 appears to interpret the writings of the poets, such as Homer and Hesiod, Pindar and Euripides and Menander and the rest; and he also investigates those of the composers, such as Herodotus and Thucydides and Plato, as being his proper task. Accordingly, 59 some of their notable figures have dealt with many of

^a Famous grammarian, who taught at Rome *circa* 80 B.C.

σαντο συγγραφέων, τοῦτο μὲν ἱστορικῶν τοῦτο δὲ ῥητορικῶν καὶ ἤδη φιλοσόφων, ζητοῦντες τίνα τε δεόντως καὶ ἀκολούθως ταῖς διαλέκτοις εἴρηται καὶ τίνα παρέφθαρται, τί τε σημαίνει παρὰ μὲν Θουκυδίδη λόγου χάριν τὸ ζάγκλον καὶ τὸρνεύοντες, παρὰ δὲ Δημοσθένει τὸ “ἐβόα ὡσπερ ἐξ ἀμάξης,” ἢ πῶς ἀναγνωστέον παρὰ Πλάτωνι τὴν ἥδος λέξιν, πότερον ψιλῶς ἐκφέροντα τὴν πρώτην συλλαβὴν ἢ δασέως, ἢ τὴν μὲν πρώτην ψιλῶς τὴν δὲ δευτέραν δασέως, ἢ ἀμφοτέρας ψιλῶς ἢ ἐν-
60 ἀλλάξ. διὰ γὰρ τὰ τοιαῦτα εἴρηται ἢ γραμματικῇ ἐμπειρία τῶν παρὰ ποιηταῖς τε καὶ συγγραφεύσι λεγομένων.

Οὗτος μὲν οὖν οὕτως ἐγκαλεῖ δὲ αὐτῷ Πτολεμαῖος ὁ περιπατητικὸς ὅτι οὐκ ἔχρησεν ἐμπειρίαν
61 εἰρηκέναι τὴν γραμματικὴν (αὐτῇ μὲν γὰρ ἢ ἐμπειρία τριβὴ τίς ἐστι καὶ ἐργάτις ἄτεχνός τε καὶ ἄλογος, ἐν ψιλῇ παρατηρήσει καὶ συγγυμνασίᾳ κειμένη, ἢ δὲ γραμματικῇ τέχνῃ καθέστηκεν), οὐκ
62 συνορῶν ὅτι τάττεται μὲν καὶ ἐπὶ τέχνῃς τούνομα, καθὼς ἐν τοῖς ἐμπειρικοῖς ὑπομνήμασιν ἐδιδάξαμεν, ἀδιαφόρως τοῦ βίου τοὺς αὐτοὺς ἐμπείρους τε καὶ τεχνίτας καλοῦντος, ἀφ’ ἧσπερ ἐνοίας καὶ ὁ Μητροδώρος ἔφη μηδεμίαν ἄλλην πραγμάτων ἐμπειρίαν τὸ ἐαυτῆς τέλος συνορᾶν ἢ φιλοσοφίαν,
62 τουτέστι μηδεμίαν τέχνην, τάττεται δὲ ἐξόχως καὶ ἐπὶ τῆς τῶν πολλῶν καὶ ποικίλων πραγμάτων γνώσεως, καθὼς καὶ τοὺς πρεσβύτας πολλὰ μὲν

¹ (παρὰ Πλάτωνι) add. cj. Warmington.

^a “Zanklon” occurs in Thucyd. vi. 4; but “torneuontes” is not found in Thucydides.

^b Cf. Dem. *de Corona* 122. “From a waggon,” i.e. like

the prose-writers, whether historians or orators or even philosophers, seeking to discover which of their writings are correctly and idiomatically expressed and which are faulty, and what, for example, is the meaning in Thucydides^a of *zanklon* (“sickle”) and *torneuontes* (“rounding off”), and in Demosthenes^b of “he shouted as though from a waggon”; and how we should pronounce the word *édos*^c in Plato—whether we should utter the first syllable with or without the aspirate, or the first syllable without and the second with the aspirate, or both without the aspirate or both with it. It is because of such investi- 60 gations that Grammar has been called “expertness regarding the language of poets and composers.”

Such, then, is the view of Dionysius. But Ptolemy the Peripatetic raises the objection that he ought not to have described Grammar as “expertness” (for 61 expertness as such is a kind of practice and operation, void of art and reasoning, which consists in mere observation and joint-exercise, whereas Grammar is an art); but he fails to notice that the term is also applied to art (as we have shown in our *Empiric Treatise*^d), since ordinary folk call the same men “experts” and “artists” without distinction; and it was with this notion that Metrodorus^e said that “philosophy is the only expertness in affairs which perceives its own end,” meaning “the only art”; 62 and the term is applied especially to the knowledge of many and various matters, in the way that we speak of old men who have seen much and heard

women crying insults from the waggons in which they rode to the Eleusinian Mysteries.

^c i.e. ἡ δ’ ὄς, “said he.”

^d This work is no longer extant.

^e An Epicurean philosopher.

ιδόντας πολλά δὲ ἀκούσαντας ἐμπείρους τοῦ βίου
φαμέν, ὡς καὶ ὁ Εὐριπίδης

ὦ τέκνον, οὐχ ἅπαντα τῷ γήραι κακά,
Ἐτεόκλεες, πρόσσεσιν, ἀλλ' ἡμπερία
ἔχει τι λέξαι τῶν νέων σοφώτερον.

63 ἐφ' ὅπερ ἴσως ὁ Θραξ φερόμενος σημαινόμενον,
ἐπεὶ πολυειδήμονά τινα καὶ πολυμαθῆ βούλεται
εἶναι τὸν γραμματικόν, ἔφη ἐμπειρίαν ὑπάρχειν
τὴν γραμματικὴν τῶν παρὰ ποιηταῖς τε καὶ
συγγραφεῦσι λεγομένων. ὥστε τοῦτο μὲν ὑπ-
έλαβρον, ἐκεῖνο δὲ ἴσως τις πραγματικωτέρας¹
64 ἐχόμενον ζητήσεως ἐρεῖ πρὸς αὐτόν· ἦτοι γὰρ
τῶν παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων
μόνον ἐμπειρίαν συμβέβηκεν εἶναι τὴν γραμ-
ματικὴν, ἢ καὶ τῶν μῆτε παρὰ ποιηταῖς μῆτε
παρὰ συγγραφεῦσι καθεστῶτων. ἀλλὰ μόνων μὲν
τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσιν οὐκ ἂν εἴποιεν
ἐμπειρίαν αὐτὴν ὑπάρχειν διὰ τὸ ποτὲ καὶ ταῖς
ἀνὰ χεῖρα τῶν ιδιωτῶν καὶ ἀνεπιστημόνων ὀμι-
λίας² ἐφιστῶσαν (θεωρεῖσθαι),³ καὶ τὸ βάρβαρον
καὶ τὸ Ἑλληνικὸν τό τε σόλοικον καὶ τὸ μὴ τοιοῦ-
65 τον ἐξελέγχουσιν. εἰ δὲ καὶ τῶν μὴ παρὰ ποιηταῖς
μηδὲ συγγραφεῦσι μόνον λεγομένων ἐμπειρία καθ-
έστηκεν, οὐκ ἔδει αὐτὴν εἶναι λέγειν, <ὁ> ἀπὸ
μέρους ἔχει⁴ συμβεβηκός.

Ἄλλὰ παρέντες τὸ περὶ τῶν τοιούτων λεπτολο-
γεῖν σκοπῶμεν, ὡς ὑπεσχόμεθα, εἰ δύναται τέλος,
ὅσον ἐπὶ τῇ τοιαύτῃ ἐννοίᾳ, ὑποστήναι ἢ γραμ-
66 ματικῆ. ὅταν οὖν λέγωσιν αὐτὴν ἐμπειρίαν κατὰ
τὸ πλεῖστον τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσι

¹ πραγματικωτέρας Heintz : γραμματικωτέρας mss., Bekk.

much as "experienced in life." So too Euripides "—

Not all is evil that besets old age,
My child Eteocles : experience
Can teach a wisdom which eludes the young.

And the Thracian ^b was probably brought to adopt ⁶³
this meaning of the term through wishing the Gram-
marian to be a man of wide knowledge and wide
learning, when he says that grammar is expertness
in the language of poets and composers. So that this
is rather a small point. But here is an argument more
suited to a serious inquiry which one might perhaps
bring against him : it belongs to grammar either to ⁶⁴
be expertness in the language of poets and composers
only, or also to be expertness in speech which is not
found in either poets or composers. But they will
not say that it is expertness in poets' and composers'
language only, since it is sometimes seen to preside
over the current conversation of ordinary and un-
learned people, and also to examine and declare
what is barbaric and what Hellenic, what is solecistic
and what not. And if it is not expertness in the ⁶⁵
speech of poets and composers only, they ought not
to have identified it with a part of its contents.

But without proceeding to split hairs about such
matters, let us consider, as we undertook to do,
whether, if we are to go by the proposed defini-
tion, the Art of Grammar can in the end exist. Now ⁶⁶
when they describe it as "expertness regarding most
of the speech of poets and composers," they mean

^a Eurip. *Phoen.* 528 ; cf. Ovid, *Met.* vi. 28.

^b i.e. Dionysius.

¹ ταῖς . . . ὀμιλίας cj. Bekk. : τὰς . . . ὀμιλίας mss., Bekk.

² (θεωρεῖσθαι) add. cj. Bekk.

⁴ <ὁ> . . . ἔχει cj. Bekk. : ἔχεν mss., Bekk.

λεγομένων, φασὶ πάντων ἢ τινῶν. καὶ εἰ πάντων, πρῶτον μὲν οὐκέτι κατὰ τὸ πλείστον ἀλλὰ πάντων, καὶ εἰ πάντων, καὶ τῶν ἀπείρων· ἀπειρα γὰρ ἔστι ταῦτα. τῶν δὲ ἀπείρων οὐκ ἔστιν ἐμπειρία· διόπερ οὐδὲ γραμματικὴ τις γενήσεται. εἰ δὲ τινῶν, ἔπει καὶ οἱ ἰδιῶται τινα τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσι λεγομένων εἰδότες οὐκ ἔχουσι γραμματικὴν ἐμπειρίαν, οὐδὲ ταύτη¹ εἶναι λεκτέον
 67 γραμματικὴν. ἐκτός ἐι μὴ τι διὰ τοῦτο (τὸ)² “κατὰ τὸ πλείστον” εἰρησθαι φήσουσιν, ἵνα ἢ τε πρὸς τὴν πάντων (ἐμπειρίαν) ἐνιαχοῦ ἀπορία³ ἢ τε πρὸς τὸν ἰδιωτισμὸν διαφορὰ ὑποβάλληται. τοῦ μὲν γὰρ ἰδιώτου διενήνοχεν ὁ γραμματικὸς παρῶσον οὐκ ὀλίγων, ὡς ἐκεῖνος, ἀλλὰ πλείστον τῶν παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων ἔμπειρός ἐστι· τῆς δὲ τῶν πάντων γνώσεως ἀδυνάτου τάχα καθεστῶσης κεχώρισται, ἔπει οὐ πάντα τὰ δὲ πλείστα ἐξ αὐτῶν ἐπαγγέλλεται γινώσκειν.
 68 ταῦτα δὲ οὐκ ἀπολογουμένου ἦν, ἀλλὰ κακοῖς ἐπιπληροῦντος κακὰ καὶ μηκέτι μετρίως ἀλλ’ ἄρδην ἐπισπωμένου τὰς ἀπορίας. πρῶτον μὲν οὖν ὡς τὰ πολλὰ ἀορίστα ἔστι καὶ τὴν σωρικὴν γεννᾶ ἀπορίαν, οὕτω καὶ τὰ πλείστα. ὅθεν ἢ περιγραμμάτωσαν ἡμῖν αὐτὰ, δείξαντες ἄχρι πόσων γνώσεως⁴ τῶν παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων ῥητέον· ἢ εἴπερ ἐπὶ ἀορίστου μένουσιν ὑποσχέσεως, τὰ πλείστα γινώσκειν λέγοντες,
 69 παραδεχέσθωσαν τὴν παρὰ μικρὸν ἐρώτησιν. ταῦ

¹ ταύτη scripsi: ταύτην mss., Bekk.

² (τὸ) add. cj. Bekk.

³ (ἐμπειρίαν) . . . ἀπορία cj. Bekk: ἀπορίαν mss., Bekk.

⁴ γνώσεως Heintz: γνώσεων mss., Bekk.

either all or some of it. And if they mean “all,” then, in the first place, it is no longer “regarding most of their speech” but all of it, and if all then endless (for their speech is endless): but of the endless there is no experience: hence no Art of Grammar will exist. But if they mean “some,” then, since even ordinary folk understand some of the speech of the poets and composers though they possess no grammatical expertness, neither in this case can one say that an Art of Grammar exists. Unless they shall say that the words “regarding most” were expressly used for the purpose of suggesting their occasional lack of expertness regarding all their language and their difference from the ordinary man. For the Grammarian differs from the ordinary man in so far as he is expert not in regard to a little, like the other, but to most of the language of the poets and composers; and he is not committed to what is probably impossible, the knowledge of it all, since he does not pretend to know all but most of it. But this is not the conduct of a man making his defence, but of one who piles evils on evils and draws upon himself difficulties to an extent that is no longer moderate but complete. Now in the first place, just as “many” is indefinite and gives rise to the puzzle of “the Heap,”^a so also is “most.” Either, then, let them define for us this “most,” showing how far we are to say that this knowledge of the speech of poets and composers extends; or if they abide by their indefinite claim and say that they know “most,” let them submit to being questioned “little by little.”

^a Cf. P.H. ii. 253 n.

γὰρ πλείστον ὀρισθέντος ἀριθμοῦ ὃ ἐνὶ ἐλάσσων
 πλείστος ἀκμήν ἔστιν, ἐπεὶ τελέως ἄτοπον μονάδος
 προσθέσει τὸν μὲν πλείστον λέγειν τὸν δὲ μηδαμῶς.
 διόπερ αἰεὶ μονάδι πλεονεκτούμενος ὃ κατ' αὐτοὺς
 πλείστος ἀριθμὸς ἐλεύσεται πάντως εἰς τὸ μηκέτι
 ἀριθμὸς πλείστος ὑπάρχειν, καὶ διὰ τοῦτο μηδέ
 γραμματικῆ¹. ὅπερ ἦν τῆς σωρικῆς ἀπορίας συμ-
 70 πέρασμα. πῶς δ' οὐκ ὄντως γραμματικῆς παχύ-
 τητος τὸ ἐν ἀπείρῳ πλήθει λέγειν πλείστα; ὡς
 γὰρ τὸ ὀλιγώτερον πρὸς τί ἔστι καὶ κατὰ τὴν
 ὡς πρὸς τὸ πλείστον σχέσιν νοεῖται, οὕτω καὶ
 τὸ πλείστον κατὰ τὴν ὡς πρὸς τὸ ὀλίγον σχέ-
 σιν θεωρήσεται. εἰ οὖν τῶν πλείστων τῶν παρὰ
 ποιηταῖς καὶ συγγραφεῦσι λεγομένων ἐμπειρίαν
 ἔχουσιν οἱ γραμματικοί, ὀλίγων τῶν λοιπῶν οὐκ
 71 ἔχουσιν· εἰ δὲ καὶ τὸ ληφθέν ἔστι πλείστον καὶ
 τὸ καταλειφθέν ἔλασσον, οὐκέτι τὸ πᾶν γίνεται
 ἄπειρον. ὅμως δ' οὖν, ἵνα μηδὲν περὶ τούτων
 ἀκριβεζώμεθα, ψευδὸς ἔστι τὸ τὰ πλείστα τῶν
 παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων
 γνώσκειν τὸν γραμματικόν· ἐλάχιστα γὰρ ἦν,
 πολλαπλασιῶν ἀπολειπομένων ἃ οὐκ οἶδε, καθὼς
 72 προβαίνουσης τῆς ζητήσεως παραστήσω. τὰ νῦν
 δὲ ἄλλην ἀπόδοσιν θεωρητέον.

Ἀσκληπιάδης τοίνυν μέμφεται τὸν Θρᾶκα Διονύ-
 σιον ἐμπειρίαν λέγοντα τὴν γραμματικὴν, δι' ἣν
 αἰτίαν καὶ ὁ Πτολεμαῖος ἔφη, ἐγκαλεῖ δὲ αὐτῷ
 καὶ τὸ² κατὰ τὸ πλείστον ἐμπειρίαν αὐτὴν ἀπο-
 φαίνειν. τοῦτο μὲν γὰρ τῶν στοχαστικῶν καὶ

¹ γραμματικῆ Fabr. : γραμματικὴν Bekk.

² τὸ cj. Bekk. : τῷ mss., Bekk.

For when a "very large" number is fixed, the number ⁶⁹
 that is less by one is still "very large," since it
 is perfectly absurd to call the one number, because of
 the addition of an unit, "very large" and the other
 not. Hence, if their "very large" number keeps on
 always being increased by one it will certainly come
 to being no longer a "very large" number, so that
 Grammar too is non-existent; and this is the con-
 clusion of the puzzle of "the Heap." And surely it is ⁷⁰
 a piece of *grammatic* obtuseness to speak of "very
 many" in dealing with an infinite number; for just
 as "small" is a relative notion and is conceived as in
 relation to the condition "very large," so also the
 notion "very large" will be conceived as relative to
 the condition "small." If, then, the Grammarians are
 expert regarding "very much of the speech of poets
 and composers," they are not expert regarding the
 small quantity which remains over; and if what is in- ⁷¹
 cluded is "very much," and what is omitted is "rather
 small," the total no longer makes up an infinite quan-
 tity.—But in any case, not to argue these points too
 closely, it is false to say that the Grammarian knows
 "very much of the speech of poets and composers";
 for it is really "very little," since many times more of
 it remains which he does not know, as I shall prove
 in the course of our inquiry. But for the moment ⁷²
 we must consider another account of the matter.

Asclepiades blames Dionysius "the Thracian" for
 calling the Art of Grammar "expertness," and that
 for the reason stated by Ptolemy, and he also finds fault
 with his description of it as "expertness for the most
 part." For this is a feature of arts which are conjectural

ὑπὸ τὴν τύχην πιπτοουσῶν ἐστὶ τεχνῶν, ὥσπερ κυβερνητικῆς καὶ ἰατρικῆς· γραμματικὴ δὲ οὐκ ἔστι στοχαστικὴ ἀλλὰ μουσικῆ τε καὶ φιλοσοφίας
 73 παραπλήσιος. εἰ μὴ τι δέδοικε, φησί, τὴν ὀλιγότητα τοῦ βίου ὡς οὐκ οὖσαν ἱκανὴν πρὸς τὸ πάντα περιλαβεῖν, ὅπερ ἐστὶν ἀτοπον, (ὡς)¹ γραμματικοῦ ἀλλ' οὐ γραμματικῆς ποιήσεται τὸν ὄρον, ἐπεὶ οὗτος μὲν τυχὸν ἴσως (ὀλίγων)² ἐπιστήμων ἐστὶ τῶν παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων, ὀλιγόβιον καθεστῶς ζῶον, ἢ δὲ γραμματικὴ
 74 πάντων εἰδήσις. ὅθεν τὸ μὲν ἀλλάζας τοῦ ὄρου τούτου τὸ δ' ἀνελών, οὕτως ἀποδίδωσι τῆς γραμματικῆς τὴν ἔννοιαν " γραμματικὴ ἐστὶ τέχνη τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσι λεγομένων." οὐκ ἀνείλε δὲ ὁ ἀνὴρ τὰς ἀπορίας ἀλλ' ἐπέτευεν· καὶ ἐν οἷς θέλει τὴν γραμματικὴν αὔξειν, ἐν τούτοις αὐτῆς ἀφείλεν.³ ἔστω γὰρ πάντων εἰδήσις τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσι λεγομένων. οὐκοῦν ἐπεὶ οὐδὲν ἐστὶν εἰδήσις παρὰ τὸν εἰδόμενον, οὐδὲ γραμματικὴ παρὰ τὸν [εἰδόμενον] γραμματικόν, ὡς οὐδὲ περιπάτησις παρὰ τὸν περιπατοῦντα καὶ στάσις παρὰ τὸν ἐστῶτα καὶ κατάκλισις παρὰ τὸν τῶν κατακείμενον. ὠμολόγηται δὲ ὁ γραμματικὸς
 75 μὴ ἔχειν πάντων εἰδήσιν· οὐκ ἄρα ἔτι ἐστὶν εἰδήσις πάντων τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσι λεγομένων, διὰ δὲ τοῦτο οὐδὲ γραμματικὴ. καὶ ἄλλως, εἴπερ τέχνη ἐστὶν ἢ γραμματικὴ, εἰδήσις οὖσα πάντων τῶν παρὰ ποιηταῖς τε καὶ συγγραφεῦσι λεγομένων, ἢ δὲ τέχνη σύστημα ἐκ καταλήψεων [τῶν περὶ τὸν γραμματικόν],⁴ ἐξ ἀνάγκης μηδενὸς ἔχοντος πάντων τῶν παρὰ ποιηταῖς καὶ

¹ (ὡς) add. cj. Bekk.² (ὀλίγων) add. cj. Bekk.

and subject to accidents such as navigation and medicine; but Grammar is not a conjectural art but akin to Music and Philosophy. "Unless," he says, "he has 73 some fear of the shortness of life as being insufficient for the comprehension of all, which is absurd; for in that case he will not be defining the Art of Grammar but the Grammarian, since he perchance, being a short-lived creature, is acquainted with a little of the speech of the poets and composers, whereas Grammar is knowledge of it all. Hence, by altering one part and 74 deleting another part of this definition, he presents the concept of Grammar in this form: "Grammar is the art dealing with the speech of poets and composers." But instead of removing the difficulties, our critic has increased them, and by the very means whereby he intends to magnify Grammar, he makes it less. For let it be granted that it is knowledge of all the speech of poets and composers: then, since knowledge is nothing apart from him who knows, neither is Grammar anything apart from the Grammarian, just as walking is nothing apart from the walker, or standing apart from him who stands, or lying apart from him who lies. But it has been agreed that the Grammarian 75 does not possess knowledge of all; therefore knowledge of all the speech of poets and composers no longer exists; neither, in consequence, does Grammar exist.—Again, if Grammar is an art, being knowledge of all the speech of poets and composers, and art is "a system composed of apprehensions,"^a then, since no one possesses an apprehension of all the speech of

^a For this Stoic definition cf. *P.H.* iii. 188.³ αὐτῆς ἀφείλεν scripsi: αὐτὴν ἀνείλεν mss., Bekk. (ἔλυσε cj. Bekk.).⁴ [τῶν . . . γραμματικόν] del. Heintz.

συγγραφεῦσι λεγομένων κατάληψιν ἀνύπαρκτος γίνεται ἢ γραμματική.

- 76 Χάρης δὲ ἐν τῷ πρώτῳ περὶ γραμματικῆς τὴν τελείαν φησὶ γραμματικὴν ἕξιν εἶναι ἀπὸ τέχνης διαγνωστικὴν τῶν παρ' Ἑλλησι λεκτῶν καὶ νοητῶν ἐπὶ τὸ ἀκριβέστατον, πλὴν τῶν ὑπ' ἄλλαις τέχναις, τὸ τελευταῖον προσθεῖς οὐ παρέργως.
- 77 ἐπεὶ γὰρ τῶν παρ' Ἑλλησι λεκτῶν καὶ νοητῶν τὰ μὲν ἔστιν ὑπὸ τέχναις τὰ δ' οὐ, τῶν μὲν ὑπὸ τέχναις οὐκ οἶεται τέχνην εἶναι καὶ ἕξιν τὴν γραμματικὴν, οἷον ἐν μὲν μουσικῇ τῆς διὰ τεσσάρων συμφωνίας καὶ τῆς μεταβολῆς τῶν συστημάτων, ἐν δὲ μαθηματικῇ ἐκλείψεως ἢ τῆς τῶν κύκλων θέσεως. τὰ δὲ αὐτὰ καὶ ἐπὶ τῶν ἄλλων νοητέον τεχνῶν· οὐδενὸς γὰρ τῶν ὑπ' αὐταῖς εἰδησις ἢ γραμματικὴ, ἀλλὰ μέθοδος τίς ἐστι τῶν
- 78 παρὰ ταύτας ἐτέρων λεκτῶν τε καὶ νοητῶν, νοητῶν μὲν ὡς ὅτι πίσυρες τέσσαρες καὶ βῆσσαι καὶ ἄγκεα οἱ βάσιμοι τόποι, λεκτῶν δὲ τῶν περὶ τὰς διαλέκτους, οἷον ὅτι τοῦτο μὲν εἴρηται Δωρικῶς τοῦτο δ' Αἰολικῶς, καὶ οὐχ ἤπερ οἱ στωικοὶ τὸ σημαινόμενον, ἀλλ' ἀνάπαλιν τὸ σημαῖνον· τὸ γὰρ νοητὸν ἐπὶ τοῦ σημαινομένου μόνου παρείληπται.
- 79 ἔοικε δὲ καὶ Κρατήτειόν τινα κινεῖν λόγον. καὶ γὰρ ἐκεῖνος ἔλεγε διαφέρειν τὸν κριτικὸν τοῦ γραμματικοῦ· καὶ τὸν μὲν κριτικὸν πάσης, φησὶ, δεῖ λογικῆς ἐπιστήμης ἔμπειρον εἶναι, τὸν δὲ γραμματικὸν ἀπλῶς γλωσσῶν ἐξηγητικὸν καὶ προσωδίας ἀποδοτικὸν καὶ τῶν τούτοις παρα-

poets and composers, Grammar is of necessity non-existent.

Chares in the first book of his treatise on the Art of 76 Grammar says that perfect Grammar is "a skill derived from art which distinguishes very precisely Greek language and thought, except in so far as these are dealt with by other arts,"—which last addition of his is not superfluous. For since part of the Greek 77 language and thought is dealt with by arts and part not, he holds that Grammar is not an art and skill concerned with what is treated by the arts,—as for instance in Music the *dia-tessaron* (or "Fourth") concord and the change of the "systems," and in Mathematic the eclipse or the position of the spheres. And the same applies, one must suppose, to the rest of the arts: Grammar is not knowledge of any of the subjects the other arts deal with, but it is a methodical treatment of language and meanings not touched 78 on by other arts,—of meanings, as that *pisures* means *tessares* (four), and that *bēssai* and *ankeā* mean accessible places; and of language in so far as it concerns dialects, as for example, that such a phrase is Doric and such other Aeolic, but it does not (like the Stoics) regard the signification of the phrase but conversely the signifying phrase itself; for the meaning is derived from the thing signified alone.—But Chares 79 seems to be disputing an argument of Crates.^a For he used to say that the "Critic" differs from the Grammarian; and, says he, the "Critic" must be expert in the whole range of linguistic science, but the Grammarian simply capable of expounding dialects and explaining prosodies and skilled in things

^a For Crates see p. 27 n.

πλησίον εἰδήμονα· παρὸ καὶ εἰκέναι ἐκεῖνον μὲν ἀρχιτέκτονι τὸν δὲ γραμματικὸν ὑπηρετῆν.

80 Ἄλλα τὰ μὲν τῆς ἀποδόσεως τοιαῦτα, πῆ μὲν μετριώτερα τῶν Διονυσίου ἀτοπημάτων πῆ δὲ χείρονα. ὅτι μὲν γὰρ τῆς σωρικῆς ἀπορίας ἐξέλυσε τὴν γραμματικὴν καὶ τῶν ἀλλοτριῶν κωλύει θεωρημάτων, μουσικῆς τε καὶ μαθηματικῆς, ὡς μὴ προσηκόντων, αὐτόθεν συμφανές· τοῦ δὲ μὴ ἀνυπόστατον ὑπάρχειν οὐδαμῶς αὐτὴν ἐρρύσατο, ἀλλὰ καὶ εἰς τὸ εἶναι τοιαύτην μᾶλλον

81 σνηγωνίσασατο. ὁ μὲν γὰρ Διονύσιος κατὰ τι διώρισε τὸν τῆς γραμματικῆς ὄρον, ἐπὶ μόνων αὐτὴν ποιητῶν τε καὶ συγγραφέων στήσας· οὗτος δὲ περὶ πᾶσαν Ἑλληνικὴν φωνὴν καὶ περὶ πᾶν σημαίνοντα καταγίνεσθαι ταύτην θέλει. ὅπερ, εἰ θεμιτὸν εἰπεῖν, οὐδὲ θεοῖς ἀνυτόν ἐστιν. ὡς γὰρ καὶ πρότερον ἐλέγομεν, οὐδεμία μέθοδος συνίσταται περὶ τι ἄπειρον, ἀλλὰ καὶ μάλιστα αὕτη τοῦτο περατοῦ· τῶν γὰρ ἀορίστων ἡ ἐπιστήμη

82 δεσμός ἐστιν· τὰ δὲ σημαίνοντα καὶ σημαίνοντα τῶν πραγμάτων ἐστὶν ἄπειρα· οὐκ ἄρα ἐστὶν ἡ γραμματικὴ τέχνη περὶ τὰ σημαίνοντα καὶ σημαίνοντα. καὶ μὴν παντοῖαι γίνονται τῶν φωνῶν μεταβολαὶ καὶ πρὸ τοῦ γεγονάσι καὶ εἰσαυθις γενήσονται· φιλομετάβολον γὰρ τί ἐστὶν ὁ αἰὼν, οὐκ εἰς φυτὰ μόνον καὶ ζῶα ἀλλὰ καὶ εἰς ῥήματα.

83 περὶ ἐστῶσαν δὲ ἀπειρίαν, οὐ τοί γε καὶ μεταβάλλουσαν, ἀμήχανόν ἐστι γνώσιν ἀνθρωπίνην εὔρειν. οὐδὲ ταύτη ἄρα ἡ γραμματικὴ συνστήσεται. ἄλλως τε ἤτοι τεχνικὴν οἶεται εἶναι τὴν ἕξιν ἢ ἄτεχνον. καὶ εἰ μὲν τεχνικὴν, πῶς οὐκ

of that sort; and accordingly the former may be compared to a head-craftsman, and the Grammarian to a subordinate.

Such, then, are the features of this definition, which 80 are in some ways more reasonable than the absurdities of Dionysius, but in others worse. For it is evident at once that he has freed Grammar from the "Heap" difficulty and has set it apart from the alien disciplines of Music and Mathematic, on the ground that they have no connexion with it; but he has by no means rescued it from the charge of being non-existent, but rather has helped to confirm that it is so. For whereas Dionysius in some degree limited the 81 scope of Grammar by confining it to the speech of poets and composers only, this man (Chares) proposes to make it cover all Greek language and every signification,—a thing which, if one may say so, is not feasible even for gods. For, as we have also said before, no scientific inquiry deals with anything unlimited, such inquiry itself being the chief agent of limitation; for science is what binds down the undefined: but things signifying and things signified 82 are unlimited; therefore the Art of Grammar is not concerned with things signifying and signified. Moreover, as to words, changes of all sorts occur and have occurred in the past and will occur in the future; for Time is a lover of change and that not only in regard to animals and plants but also to words.⁶ But concern- 83 ing a stationary infinite, not to speak of a changing one, no human knowledge can be found. Neither, then, in this way will Grammar subsist.—Further, either he supposes that the "skill" is artistic or that it is without art. And if it is artistic, why did he

⁶ Cf. Hor. *A.P.* 60 ff.

αὐτὴν εἶπε τέχνην ἀλλὰ τὸ ἀφ' οὗ ἔστιν; εἰ δὲ ἄτεχνον, ἐπεὶ οὐ δυνατόν διὰ τοῦ ἀτέχνου τὸ τεχνικὸν ὁρᾶσθαι, οὐδὲ συστήσεται τις γραμματικὴ ἕξις τεχνικῶς διαγιγνώσκουσα τὰ παρ' Ἑλληνισμῶν σημαίνοντά τε καὶ σημαινόμενα.

84 Δημήτριος δὲ ὁ ἐπικαλούμενος Χλωρός καὶ ἄλλοι τινὲς τῶν γραμματικῶν οὕτως ὠρίσαντο “ γραμματικὴ ἐστὶ τέχνη τῶν παρὰ ποιηταῖς τε καὶ τῶν κατὰ τὴν κοινὴν συνήθειαν λέξεων εἰδησις.” μένουσι δὲ καὶ τοὺς αἰ αὐταὶ ἀπορίαι· οὔτε γὰρ πάντων τῶν παρὰ ποιηταῖς λεγομένων δύναται
85 εἶναι τέχνη γραμματικὴ οὔτε τινῶν. καὶ πάντων μὲν αὐτόθεν ἀδύνατον, εἶγε καὶ περὶ θεῶν καὶ περὶ ἀρετῆς καὶ ψυχῆς λέγεται παρὰ τοῖς ποιηταῖς, ὧν ἀπείρως ἔχουσιν οἱ γραμματικοί· τινῶν δὲ διὰ τὸ μὴ εἰς τοὺς γραμματικούς τὸ τοιοῦτον πίπτει μόνους ἀλλὰ καὶ ἄλλους τινάς, οἷον φιλοσόφους καὶ μουσικούς καὶ ἰατρούς· συνεῶρων γὰρ
86 καὶ οἷδε τινὰ τῶν παρὰ ποιηταῖς. πάλιν τε ἐν τῷ λέγειν καὶ τῶν κατὰ τὴν κοινὴν συνήθειαν λέξεων εἰδησις εἶναι τὴν γραμματικὴν εἰ μὲν τὸ καθολικὸν λαμβάνοιεν τὸ “ εἰ τινὲς εἰσι κατὰ τὴν κοινὴν συνήθειαν λέξεις, ἐκείνων ἐστὶν εἰδησις ἢ γραμματικὴ,” ἀμαρτάνουσιν· ἀπειροὶ γὰρ αἱ κατὰ τὴν κοινὴν συνήθειαν λέξεις, καὶ τῶν ἀπείρων οὐκ
87 ἔστιν εἰδησις. εἰ δὲ ἐπὶ τὸ ἐπὶ μέρους φέροντο, ὅπερ ἴσον ἐστὶ τῷ “ εἰσὶ τινες λέξεις κατὰ τὴν συνήθειαν τὴν κοινὴν ὧν εἰδησις ἐστὶν ἢ γραμματικὴ,” οὐδ' οὕτω ποιήσουσι τι τὴν γραμματικὴν· καὶ γὰρ ὁ Ἀθηναῖος εἰδησις ἔχει τῶν κατὰ τὴν
50

not term it “ art ” instead of that wherefrom it is derived? But if it is without art, then, since the artistic cannot be perceived by means of the non-artistic, neither will there be formed any “ grammatic skill ” which distinguishes by art what things are signifying and what signified in the speech of the Greeks.

Demetrius, surnamed Chlorus, and certain other 84 Grammarians have given this definition: “ The Art of Grammar is knowledge of the forms of speech in the poets and also those in common usage.” But for these, too, the same difficulties remain; the Art of Grammar cannot deal either with all the forms of speech in the poets or with some of them. That it 85 should deal with them all is sheerly impossible, since in the poets there is discourse concerning the gods and concerning virtue and the soul, things whereof the Grammarians have no expert knowledge. Nor can it deal with some of them, since a subject such as this falls within the scope not of Grammarians only but also of certain others, such as philosophers and musicians and physicians; for these too have inquired into some of the diction of the poets. Again, 86 in their statement that Grammar is “ knowledge of the forms of speech in common usage ” as well, if they are taking it as the universal proposition “ whatsoever forms of speech are in common usage, of these the Art of Grammar is knowledge,” then they are in error; for the forms of speech in common usage are infinite, and of infinites there is no knowledge. But if they should tend to state it as a particular 87 proposition, equivalent to “ there are certain forms of speech in common usage whereof Grammar is knowledge,” not even so will they make Grammar anything real; for the Athenian has knowledge of

Ἀτθίδα συνήθων λέξεων, καὶ ὁ Δωριεὺς τῶν κατὰ τὴν Δώριον, καὶ ὁ ῥήτωρ τῶν κατὰ τὴν ῥητορικὴν, 88 καὶ ὁ ἰατρός τῶν κατὰ τὴν ἰατρικὴν. εἰ δὲ λέγοιεν πασῶν τῶν κατὰ τὴν κοινὴν συνήθειαν αὐτὴν λέξεων εἶδησιν οὐχ ὡς τῶν καθ' ἕκαστα καὶ ἐν μέρει πασῶν (τοῦτο γὰρ ὄντως ἀδύνατον) ἀλλὰ τῶν καθόλου πασῶν καὶ ἀνωτάτω ἐν ταῖς διαλέκτοις, οἷον ὅτι Δωριέων μὲν ἐστὶ τοιούτω τόνῳ χρῆσθαι Ἰώνων δὲ ἄλλω, τάχα μὲν τι πιθανὸν ἐροῦσιν, οὐ 89 μὴν ἀληθές· οὔτε γὰρ ἐν ἔθος ἐστὶ καθ' ἑκάστην διάλεκτον (πολλαὶ γὰρ Δωριδῆες καὶ Ἀτθίδες), οὔτε οἱ κανόνες οὓς δοκοῦσι παραδιδόμηναι πρὸς πᾶσαν ἀποτείνονται λέξιν, ἀλλ' ἄχρι μὲν ποσῶν καὶ ὁμοτόνων, οἷον ὀξύτων ἢ βαρυτόνων, προκόπτουσι, πάσας δὲ περιλαβεῖν ἀδυνατοῦσιν.

90 Δείγματος μὲν οὖν χάριν ταῦτ' εἰρήσθω εἰς τὸ ἀνυπόστατον εἶναι τὴν γραμματικὴν ὅσον ἐπὶ τῇ παρὰ τοῖς γραμματικοῖς αὐτῆς ἐπινοία· μετελθόντες δὲ ἀκολουθῶς καὶ τὰ κυριώτατα τῶν ἐν αὐτῇ θεωρημάτων, καὶ ἐξ ὧν μάλιστα λαμβάνει τὴν ὑπόστασιν, βασανίζωμεν.

Δ'.—ΤΙΝΑ ΜΕΡΗ ΓΡΑΜΜΑΤΙΚΗΣ

91 Πολλῆς οὔσης καὶ ἀηγιότητος παρὰ τοῖς γραμματικοῖς περὶ μερῶν γραμματικῆς διαστάσεως, ἵνα μήτε τὸ πάρεργον ἔργου χώραν ἐπέχειν ἡμῖν φαίνηται, μήτε εἰς ἄλλοτριάν καὶ ὡς πρὸς τὸ παρὸν ἀνωφελῆ ἐμβαίοντες ὑλὴν ἀπολειπόμεθα τῆς ἀναγκαιοτέρας ἀντιρρήσεως, ἀπαρκέσει λέγειν ἀσυν-

the forms of speech commonly used in Attica, and the Dorian of those in Dorian lands, and the orator of those used in rhetoric, and the physician of those in medicine. And if they should mean by this "knowledge of all the forms of speech in common usage," not that of all the forms taken separately and individually (for this is actually impossible), but knowledge of all those in the dialects which are universal and most widely used, as for instance that it is the practice of the Dorians to use one sort of pitch and the Ionians another, then perhaps what they say will be plausible, yet it will not be true; for neither is 89 there one customary practice in each dialect (for both the Dorian and the Attic dialects are numerous), nor do the rules which they suppose they are handing on extend to every form of speech but only go so far as to apply to a certain number and those with similar pitch, such as oxytones and barytones, and they are unable to include them all.

Let so much, then, be said by way of sample to 90 show the baselessness of the Art of Grammar, judging by the definition of it given by the Grammarians. Next let us investigate and test the most important of its theorems and those from which it mainly derives its constitution.

CHAPTER IV.—THE PARTS OF GRAMMAR

Since there exists amongst the Grammarians great 91 and endless dissension concerning the parts of the Art of Grammar, in order that we should not allow side-issues to seem to usurp the place of the main issue, nor be diverted from the more necessary mode of refutation by plunging into matter which is neither pertinent nor useful for our present purpose, it will

κοφανητότερον ὡς ἄρα τῆς γραμματικῆς τὸ μὲν ἔστιν ἱστορικὸν τὸ δὲ τεχνικὸν τὸ δὲ ἰδιαίτερον, δι' οὗ τὰ κατὰ τοὺς ποιητὰς καὶ συγγραφεῖς μεθ-
 92 οδεύεται. ὧν τεχνικὸν μὲν ἔστιν ἐν ᾧ περὶ τῶν στοιχείων καὶ τῶν τοῦ λόγου μερῶν ὀρθογραφίας, τε καὶ ἑλληνισμοῦ καὶ τῶν ἀκολουθῶν διατάττονται, ἱστορικὸν δὲ ὅπου περὶ προσώπων οἰοῦναι θείων τε καὶ ἀνθρωπίνων καὶ ἡρωικῶν διδάσκουσιν, ἢ περὶ τόπων διηγοῦνται καθάπερ ὄρων ἢ ποταμῶν, ἢ περὶ πλασμάτων καὶ μύθων παραδιδόασιν ἢ εἴ τι
 93 τῆς αὐτῆς ἰδέας ἔστιν. ἰδιαίτερον δ' ἐν ᾧ τὰ¹ κατὰ τοὺς ποιητὰς καὶ συγγραφεῖς ἐπισκοποῦσι, καθ' ὃ τὰ ἀσαφῶς λεγόμενα ἐξηγοῦνται, τὰ τε ὑγιῆ καὶ τὰ μὴ τοιαῦτα κρίνουσι, τὰ τε γνήσια ἀπὸ τῶν νόθων διορίζουσιν. ἀλλ' ὡς μὲν τύπῳ καὶ ὀλοσχερέστερον περιλαβεῖν, ταῦτά ἐστι τὰ τῆς
 94 γραμματικῆς μέρη· νοητέον δὲ αὐτὰ οὐ κατ' εἰλικρίνειαν, οὐδ' ὡς ἂν τις εἰποι μέρη τοῦ ἀνθρώπου ψυχῆν² καὶ σῶμα. ταυτὶ μὲν γὰρ ὡς ἕτερα ὄντα ἀλλήλων νοεῖται, τὸ δὲ τεχνικὸν καὶ ἱστορικὸν καὶ τὸ περὶ τὰς ποιήσεις καὶ συγγραφὰς τῆς γραμματικῆς μέρη πολλὴν ἔχει συμπλοκὴν καὶ ἀνά-
 95 κρασιν πρὸς τὰ λοιπὰ· καὶ γὰρ ἡ τῶν ποιητῶν ἐπίσκεψις οὐ χωρὶς τοῦ τεχνικοῦ καὶ ἱστορικοῦ γίνεται μέρους, καὶ ἑκάτερον τούτων οὐ δίχα τῆς τῶν ἄλλων παραπλοκῆς συνέστηκεν. ὥσπερ οὖν οἱ λέγοντες τῆς ἰατρικῆς μέρη δίαιταν χειρουργίαν φαρμακείαν οὕτω λέγουσιν ὡς πολλῆς οὕσης ἐν

¹ δ' ἐν ᾧ τὰ scripsi: δὲ τὸ mss., Bekk. (δὲ ᾧ τὰ cj. Bekk.).

² ψυχῆν cj. Bekk.: ψυχῆ mss., Bekk.

be sufficient to state without sophistry that one part of Grammar is "historical," another "technical," a third "special,"^a in which last the writings of the poets and prose-writers are dealt with. Of these the 92 "technical" part is that in which they formulate the rules concerning the elements and the parts of speech and orthography and Greek idiom and consequential matters; and the "historical" is that wherein they give instruction regarding persons—divine persons, for example, and human, and heroic,—or else explain about places, such as mountains or rivers, or record fictions or legends, or anything else of that description. The "special" part is that in which they 93 examine the language of the poets and prose-writers, and in it they explain the obscurities in their language, and judge as to which of their expressions are sound and which unsound, and distinguish the genuine works from the spurious. Such then, to describe them in broad outline, are the parts of the Art of Grammar; but one should not conceive of them as 94 "parts" in the precise sense of that term, nor in the way that one speaks of the soul and body as "parts" of the man. For these latter are conceived as being distinct from each other, whereas the parts of Grammar,—the technical and historical and that which deals with poetry and prose,—are each closely interconnected and intermixed with the rest; for the 95 investigation of poetry is not separate from the "technical" and "historical" parts, nor is each of these devoid of mutual connexion with the other two. So, just as those who describe dieting, surgery and pharmacy as "parts" of the art of medicine, imply thereby that in their precepts there is much mutual

^a Also termed "exegetical."

τοῖς θεωρήμασιν ἀλληλουχίας (καὶ γὰρ ἡ διαίτα οὐ χωρὶς φαρμακείας καὶ χειρουργίας πρόεισι, καὶ ἡ φαρμακεία πάλιν περιείχεται καὶ τῇ τῶν ἄλλων δυνάμει), ὡς καὶ ἐπὶ τοῦ παρόντος οὐκ ἀπότακτόν τι ἐστὶν ἕκαστον μέρος, οὐδ' εἰλικρινές
 96 ἀπὸ τῆς τῶν ἄλλων ἐπιμιξίας. τοῦτο δὲ προδιηρθρώσαμεν οὐ παρέργως, ἀλλ' ἵνα εἰδῶμεν ὡς ἂν ἐν τι ἐξ αὐτῶν δειχθῆ ἄσύστατον, δυνάμει καὶ τὰ λοιπὰ ἀνήρηται, ὧν ἑκάτερον οὐ χωρὶς τοῦ ἀναιρεθέντος ὑφίσταται. ὁμως δὲ οὐ ποιήσομεν τοῦτο καίπερ ὄν σύντομον, ἀλλὰ πειρασόμεθα πρὸς ἕκαστον ἀντιλέγειν, ὡς εἰ καὶ μὴ ἔχρηζε τῆς τῶν λοιπῶν παρουσίας. τάξει δὲ ἀρκτέον ἀπὸ τοῦ πρώτου.

Ε'.—ΠΕΡΙ ΤΟΥ ΤΕΧΝΙΚΟΥ ΤΗΣ ΓΡΑΜΜΑΤΙΚΗΣ
 ΜΕΡΟΥΣ

97 Διὰ πολλὰ μὲν καὶ ἄλλα δίκαιόν ἐστι μετὰ σπουδῆς ἐξετάζειν τὴν γραμματικὴν τεχνολογίαν, μάλιστα δὲ ἀπάντων διὰ τὸ ἐπ' αὐτῇ κομᾶν καὶ μέγα φρονεῖν τοὺς γραμματικούς, αἰεὶ δὲ τῶν κατὰ τὰ λοιπὰ κοσμουμένων μαθήματα κατατρέχειν ὡς μηδὲ τὴν κοινὴν τῶν Ἑλλήνων συνήθειαν ἐπισταμένων, καὶ ἔτι διὰ τό, εἴ ποτε θλίβοντο ἐν ζητήσει, μὴ ἄλλην εὐρίσκειν πολλάκις ἀποφυγὴν εἰς τὸ περισπᾶν τοὺς συζητοῦντας αὐτοῖς ἢ τὸ ὅτι βάρβαρον ἢ σόλοικόν ἐστὶ τὸ ὑπ' αὐτῶν λεχθέν.
 98 οὐκ ὀλίγην δὲ ἂν ἔχοι μοῖραν εἰς προτροπὴν καὶ ὅταν βλέπωμεν τοὺς μηδὲ δύο σχεδὸν ῥήματα δεξιῶς εἶρειν δυναμένους γραμματικούς θέλοντας

borrowing from one another (for dieting does not progress apart from pharmacy and surgery, and pharmacy in turn is involved in the functioning of the other "parts"), so also in the present instance each part of Grammar is not something quite separate and free from admixture with the others. This description we have given beforehand in full detail, not as a side-issue, but so that we may understand that if any one of these parts is proved to have no consistence the others too are virtually destroyed, since neither of them subsists when apart from the one which has been destroyed. We shall not, however, adopt this method, concise though it is, but shall try to refute each part as though it had no need of the presence of the rest. And, keeping the order, we must begin with the first part.

CHAPTER V.—CONCERNING THE TECHNICAL PART OF
 GRAMMAR

While it is right for many other reasons to examine 97 with care the technology of Grammar, it is especially so because it is upon this that the Grammarians plume themselves and give themselves great airs, while they are always running down those who are highly reputed in other sciences as men who do not even understand the common usage of Greek speech; and also for the further reason that whenever they are hard pressed in disputation they frequently find no other resort for the purpose of distracting their opponents than asserting that what they have said is a barbarism or a solecism. And what has no small 98 share in urging us on is our observing the Grammarians, who can hardly even join two sentences together skilfully, wishing to convict of barbarisms

ἕκαστον τῶν μέγα δυναθέντων ἐν εὐφραδείᾳ καὶ ἑλληνισμῷ παλαιῶν, καθάπερ Θουκυδίδην Πλάτωνα Δημοσθένην, ὡς βάρβαρον ἐλέγχειν. μία γὰρ ἀντὶ πάντων ἄμυνα γενήσεται πρὸς αὐτούς, ἐὰν τὴν ψευδώνυμον αὐτῶν τεχνολογίαν ἀτεχνον ἀποδείξωμεν. τάξει δὲ λεκτέον ἡμῖν πρῶτον περὶ 99 τῶν στοιχείων, ἐξ ὧν τὰ πάντα κατ' αὐτοὺς συνέστηκεν καὶ ὧν ἀναιρεθέντων ἀγγραμμάτους ἀνάγκη γίνεσθαι τοὺς γραμματικούς.

Καὶ δὴ τριχῶς λεγομένου τοῦ στοιχείου, τοῦ τε γραφομένου χαρακτήρος καὶ τύπου καὶ τῆς τούτου δυνάμεως καὶ ἔτι τοῦ ὀνόματος, προαγέτω νῦν ἡ ζήτησις μάλιστα περὶ τῆς δυνάμεως· αὕτη γὰρ καὶ κυρίως στοιχείον παρ' αὐτοῖς προσηγόρευται. εἰκοσιτεσσάρων τοίνυν στοιχείων 100 ὄντων τῆς ἐγγραμμάτου φωνῆς, τούτων διττὴν ὑποτίθενται κατὰ τὸ ἀνωτάτω τὴν φύσιν. τὰ μὲν γὰρ αὐτῶν φωνάεντα προσαγορεύουσι, τὰ δὲ σύμφωνα, καὶ φωνάεντα μὲν ἑπτὰ, αεηιοω, σύμφωνα δὲ τὰ λοιπά. τῶν δὲ φωναέντων τρεῖς λέγουσι διαφοράς· δύο μὲν γὰρ αὐτῶν φύσει μακρὰ λέγουσι τυγχάνειν, τὸ η καὶ τὸ ω, ἰσάριθμα δὲ βραχέα, τὸ ε καὶ τὸ ο, τρία δὲ κοινὰ μήκους τε καὶ βραχύτητος, α ι υ, ἅπερ δίχρονα καὶ ὑγρά καὶ ἀμφίβολα καὶ μεταβολικὰ καλοῦσιν· ἕκαστον γὰρ 101 αὐτῶν πέφυκεν ὅτε μὲν ἐκτείνεσθαι ὅτε δὲ συστέλλεσθαι, οἷον τὸ μὲν α ἐπὶ τοῦ

* Ἄρες Ἄρες βροτολογιγὲ μαιφόνε τειχεσιπλήτη,
τὸ δὲ ι

Ἰλιον εἰς ἱεράν τῇ δ' ἀντίος ὤρνυτ' Ἀπόλλων,

* Cf. Hom. Il. v. 81.

* Cf. Hom. Il. vii. 20.

every one of the ancients who were supreme masters of correct language and Greek idiom, such as Thucydides, Plato and Demosthenes. Against their attack one defence will stand for all,—the proof, namely, that their “technology” is non-technical. And first in order we must discuss the “elements,” wherefrom 99 their whole system is constructed, and the abolition of which will necessarily bring it about that the Grammarians are ungrammatic.

The term “element” being used in three senses,—of the written character or form, and of its “function” (or sound), and also of the name,—let us proceed now in our inquiry to deal mainly with the function; for this is accounted by the Grammarians to be the “element” proper. As, then, there are twenty-four elements of the voice in written form, 100 they lay it down that the nature of these, in respect of their *summa genera*, is twofold. The one class they call vowels, the other consonants; and seven are vowels—*a e η ι ο υ ω*,—the rest being consonants. And of the vowels there are, they say, three distinct sorts: for they say that two of them are long, namely *η* and *ω*, an equal number short, namely *ε* and *ο*, and three indifferently long or short, namely *α ι υ*, which they term “dichronous” (or having two quantities), and “liquid” and “amphibolous” (or ambiguous) and “metabolic” (or changeable); for each of them is naturally capable of being at one time long, at 101 another short, as *α* in the example, Ἄρες Ἄρες—

Ἄρες, Ἄρες, fort-wrecker and murderous slayer of mortals,^a—
and *ι* in Ἰλιον εἰς ἱεράν,^b—

(So fared she)
Even to Holy Troy, and Apollo hastened to meet her,^b—

τὸ δὲ υ

θεσπέσιον νεφέων ἐκ Διὸς ἕν ὕδωρ.

- 102 τῶν δὲ συμφώνων τὰ μὲν ἡμίφωνα ἔστι κατ' αὐτῶν τὰ δὲ ἄφωνα, καὶ ἡμίφωνα μὲν ὅσα δι' αὐτῶν ροῖζον ἢ σιγμὸν ἢ μυγμὸν ἢ τινα παραπλήσιον ἤχον κατὰ τὴν ἐκφώνησιν ἀποτελεῖν πεφυκότα, καθάπερ τὸ ζ θ λ μ ν ξ ρ σ φ χ ψ, ἢ ὡς τινές, χωρὶς τοῦ θ καὶ φ καὶ χ τὰ λειπόμενα ὀκτώ· ἄφωνα δὲ ἔστι τὰ μήτε συλλαβὰς καθ' ἑαυτὰ ποιεῖν δυνάμενα μήτε ἤχων ιδιότητας, αὐτὸ δὲ μόνον μετὰ τῶν ἄλλων συνεκφωνούμενα, καθάπερ
- 103 β γ δ κ π τ, ἢ ὡς ἔνιοι, καὶ τὸ θ φ χ. καὶ μὴν κοινῶς τῶν συμφώνων πάλιν τὰ μὲν φύσει δασέα λέγουσι τὰ δὲ ψιλὰ, καὶ δασέα μὲν θ φ χ, ψιλὰ δὲ κ π τ· μόνον δὲ φασὶ τὸ ρ ἐπιδέχεσθαι ἐκάτερον, δασύτητα καὶ ψιλότητα. λέγουσι δὲ τινα τῶν συμφώνων καὶ διπλᾶ, καθάπερ τὸ ζ ξ ψ· συνεστηκέναι γάρ φασὶ τὸ μὲν ζ ἐκ τοῦ σ καὶ δ, τὸ δὲ ξ ἐκ τοῦ κ καὶ σ, τὸ δὲ ψ ἐκ τοῦ π καὶ σ.
- 104 Τούτων δὴ προεστοιχειωμένων, φημὶ πρῶτον μὲν ἀτόπως αὐτοῖς λέγεσθαι τῶν στοιχείων τινα εἶναι διπλᾶ. τὸ γὰρ διπλοῦν σύστημα ἔστιν ἐκ δυοῦν, τὸ δὲ στοιχεῖον οὐκ ἔστι σύστημα ἐκ τινῶν· ἀπλοῦν γὰρ ὀφείλει τυγχάνειν καὶ οὐκ ἐξ ἐτέρων συστατῶν. οὐκ ἄρα ἔστι διπλοῦν στοιχεῖον. ἄλλως τε, εἰ τὰ συστατικά τοῦ διπλοῦ στοιχείου στοιχεῖά ἐστι, τὸ διπλοῦν ἐκ τῶν στοιχείων συνεστῶς οὐκ ἔσται στοιχεῖον· ἀλλὰ μὴν τὰ συστατικά τοῦ διπλοῦ στοιχείου στοιχεῖα ἐστίν· οὐκ ἄρα τὸ διπλοῦν ἐστὶ στοιχεῖον.

* This pentameter comes, perhaps,—as Fabricius suggests—from a lost poem of Callimachus.

and the υ in ἕν ὕδωρ—

Out of the Sky-god's clouds poured a marvellous flood.*

Of the consonants some, according to them, are “semi-vocal,” others “non-vocal” (or mute): “semi-vocal” are all those which of themselves naturally produce at their utterance the *r*-sound or the *s*-sound or the *m*-sound, or some similar sound, for example ζ θ λ μ ν ξ ρ σ φ χ ψ, or, as some say, the eight which remain after the omission of θ φ and χ. “Non-vocal” are those which are not able by themselves to form syllables or sounds of their own, they being uttered only along with others, such as β γ δ κ π τ, or, as some say, with the addition of θ φ χ. Moreover, of the consonants again in general they say that some are naturally “rough” (or aspirated), others “smooth” (or without the aspirate), the “rough” being θ φ χ, and the “smooth” κ π τ; and ρ alone, they say, admits of either breathing, the “rough” or the “smooth.” They declare also that some of the consonants are “twofold,” such as ζ ξ ψ; for ζ, they say, is composed of σ and δ, ξ of κ and σ, ψ of π and σ.

These, then, being placed first as elements, I assert, firstly, that it is absurd of them to state that some of the elements are “twofold,” for what is twofold is a compound of two things, but the element is not a compound of any things; for it must be simple and not compounded of other things. Therefore a twofold element does not exist. Again, if the components of the twofold element are elements, the twofold compound of those elements will not be an element; but in fact the components of the twofold element are elements; therefore the twofold (compound) is not an element.

105 Καὶ μὴν ὡς ταῦτα ἀναιρεῖται, οὕτω καὶ τὰ
 δίχρονα, κοινὴν φύσιν μήκουσ τε καὶ βραχύτητος
 ἀξιούμενα ἔχειν. εἶπερ γὰρ τοιαῦτα ἐστίν, ἧτοι
 αὐτὸ τὸ γράμμα κατ' ἰδίαν καὶ ὁ ψιλός, εἰ τύχοι,
 τοῦ α ἢ υ χαρακτήρ ἐμφανιστικός ἐστι τῆς διχρόνου
 φύσεως, καὶ νυνὶ μὲν συστέλλεσθαι νυνὶ δὲ ἐκτείνε-
 106 σθαι δυνάμενον, <ἢ σὺν> προσωδία. ἀλλ' ὁ μὲν
 χαρακτήρ κατ' ἰδίαν οὐκ ἐστὶ κοινού φύσει στοιχείου
 μηνυτικός. οὔτε γὰρ ὅτι μακρύνεται οὔθ' ὅτι βρα-
 χύνεται οὔθ' ὅτι τὸ συναμφότερον καὶ μακρύνεται
 καὶ βραχύνεται ἐμφαίνει· ἀλλ' ὃν τρόπον ἡ δι'
 αὐτοῦ συλλαβή, καθάπερ εἴρηται ἐπὶ τῆς Ἄρες λέ-
 ξεως, οὐ^α χωρὶς τῆς προστιθεμένης προσωδίας οὔτ'
 εἰ μακρά ἐστὶν οὔτ' εἰ βραχεῖα γινώσκεται, οὕτω
 καὶ τὸ α ἢ υ κατ' ἰδίαν λαμβανόμενα οὐ κοινὰ
 107 ἑκατέρας ἔσται δυνάμεως ἀλλ' οὐδετέρας. λείπεται
 οὖν σὺν προσωδία λέγειν αὐτὸ κοινὸν ὑπάρχειν.
 ὁ πάλιν ἐστὶν ἀμήχανον· προσλαμβάνον γὰρ
 ταύτην ἢ μακρὸν γίνεται, ὅτε ἐστὶ μακρά, ἢ βραχύ,
 ὅτε ἐστὶ βραχεῖα, κοινὸν δὲ οὐδέποτε. οὐκ ἄρα
 108 ἐστὶ φύσει δίχρονα στοιχεῖα. εἰ δὲ λέγοιεν κοινὰ
 φύσει ὑπάρχειν ταῦτα παρόσον ἐπιδεκτικά ἐστὶν
 ἑκατέρου, μήκουσ τε καὶ συστολήσ, λήσονται
 σχεδὸν εἰς τὴν αὐτὴν ἐγκυλισθέντες ἀπορίαν. τὸ
 γὰρ ἐπιδεκτικὸν τινὸς οὐκ ἐστὶ ἐκεῖνο τὸ οὐπερ
 ἐπιδεκτικὸν ἐστίν· ὡσπερ γὰρ ὁ χαλκὸς ἐπιδεκτι-
 κὸς μὲν ἐστὶ τοῦ ἀνδριάσ γενέσθαι, οὐκ ἐστὶ δὲ
 ἀνδριάσ ἐφ' ὅσον ἐπιδεκτικός ἐστὶ, καὶ ὃν τρόπον
 τὰ ξύλα ἐπιτήδειον μὲν ἔχει φύσιν εἰς τὸ ναῦσ

¹ <ἢ σὺν> addidi: τῆ mss., Bekk. (προσωδία, ἢ σὺν προσωδία
 κοινὸν ὑπάρχει cj. Bekk.).

^α οὐ cj. Bekk.: ἡ mss., Bekk.

Moreover, just as these are destroyed, so also are 105
 the "dichronous" elements which, as is claimed, are
 naturally "common" in respect of length and brevity.
 For if they are such, either the letter itself in itself
 and the mere character, of, say, the ε, ι, and υ, are
 indicative of their "dichronous" nature, and can be
 now shortened, now lengthened, or the "tension"^a
 must be added. But the character is not of itself indi- 106
 cative of an element naturally "common," for it does
 not show clearly that it is long or that it is short or that
 it is at once both long and short; but just as it is not
 known about the syllable formed by it,—as we said
 in the case of the word Ἄρες—whether it is long or
 short apart from the added tension, so also the letters
 α ἢ υ taken by themselves will not be "common"
 and having either quantity, but will have neither. It 107
 remains, then, to say that the letter is "common"
 when conjoined with tension. But this again is im-
 possible; for when the letter takes the tension it
 becomes either long, when the tension is long, or
 short when it is short, but never "common." Hence,
 elements "dichronous" by nature do not exist.—And 108
 if they should say that these elements are "common"
 by nature inasmuch as they are susceptible of either
 quantity, length or shortness, they will unwittingly
 be involving themselves in much the same difficulty.
 For what is susceptible of a thing will not be that
 thing whereof it is susceptible; for just as the bronze
 is susceptible of becoming the statue, but inasmuch
 as it is susceptible is not the statue, and just as the
 timber possesses a nature suitable for becoming a

^a See note on § 113.

γενέσθαι, οὕτω δὲ ἔστι ναῦς, οὕτω καὶ τὰ τοιαῦτα τῶν στοιχείων ἐπιδεκτικὰ μὲν ἔστι μήκους τε καὶ συστολῆς, οὔτε δὲ μακρὰ ἔστιν οὔτε βραχεὰ οὐθ' ἑκάτερον πρὶν ἀπὸ προσωδίας ποιωθῆναι.
 109 πρὸς γε μὴν τοῖς λεχθεῖσιν ἐναντίον ἔστιν ἢ τε βραχύτης καὶ ἢ ἐπέκτασις, καὶ οὐ συννύσσοται· ἀναιρέσει γὰρ τῆς βραχύτητος ἢ ἐπέκτασις συνίσταται, καὶ ἀναιρουμένης μακρᾶς βραχεῖα γίνεται. παρ' ἣν αἰτίαν ἀδύνατον περισπωμένην βραχεῖαν γενέσθαι, διὰ τὸ τῷ περισπασμῷ κατ' ἀνάγκην
 110 συννύσσοται τὴν ἐπέκτασιν. διόπερ εἰ φύσει τι δίχρονόν ἐστι στοιχείον, ἦτοι ὑφ' ἑν περὶ αὐτὸ ἢ τε τῆς βραχύτητος καὶ ἢ τῆς ἐπέκτασεως ὑποστήσεται δύναμις ἢ παρὰ μέρος. ἀλλ' ὑφ' ἑν μὲν ἀμήχανον· περὶ γὰρ τὴν αὐτὴν ἐκφώνησιν κατὰ τὸ αὐτὸ ἀναιρετικαὶ ἀλλήλων δυνάμεις οὐκ ἂν ὑποσταίεν. λείπεται ἄρα παρὰ μέρος. ὁ πάλιν ἔστιν ἀπίθανον· ὅτε γὰρ ἔστι <βραχὺ καὶ ὅτε ἔστι> μακρόν, τότε οὐκ ἔστι κοινὸν στοιχείον βραχύτητος καὶ μήκους, ἀλλὰ βραχὺ μόνον <καὶ μακρόν μόνον>.¹
 111 Ὁ δ' αὐτὸς τῆς ἐπιχειρήσεως τρόπος γινέσθω καὶ ἐπὶ τῶν φύσει ψιλῶν ἢ δασέων ἢ καθ' ἑκάτερον κοινῶν· ἡμῶν δὲ ἀπόχρη τὸ γένος τῆς ἐπιχειρήσεως ὑποδείξαι.

Καὶ μὴν ἐπεὶ ἀνήρηται τὰ κοινὰ καὶ δέδεικται τὸ ἐκτείνεσθαι μόνον αὐτὰ ἢ συστέλλεσθαι, ἀκολουθήσει καὶ τὸ δισσοῦν ὑπάρχειν ἕκαστον, τὸ
 112 μὲν φύσει μακρόν τὸ δ' αὖ φύσει βραχὺ. δισσοῦ οὖν ὄντος τοῦ α καὶ ι καὶ υ οὐκέτι ἑπτὰ γενήσεται μόνον στοιχεῖα φωνάεντα, ὧν δύο μὲν μακρὰ, τὸ

¹ <βραχὺ . . . ἔστι> et <καὶ μ. μόνον> addidi (Bekk. ej. <καὶ ὅτι βραχὺ> post μακρόν· et <μακρόν μόνον καὶ> post ἀλλά).

ship, but is not as yet a ship, so also elements of this kind are susceptible of both length and shortness but are neither long nor short, nor either of the two, before they have been qualified by tension.—Moreover, in 109 addition to what has been said, shortness and length are contraries and do not exist together; for length exists by the abolition of shortness, and when a long is abolished a short comes into existence. And for this reason it is impossible for a circumflexed letter to be short, since the lengthening necessarily co-exists with the circumflex. Consequently, if an 110 element is “dichronous” by nature the quality of both shortness and length will subsist in it either both together or one at a time. But it is impossible for both qualities to subsist together, for qualities which are destructive of each other will not subsist in the same utterance simultaneously. It remains, then, to say that they subsist “one at a time.” But this too is incredible; for when the element is short, or when it is long, it is not, at that time, “common” as regards shortness and length, but is solely short or solely long.

Let the same method of attack be employed in the 111 case of the elements which are “smooth” or “rough,” or “common,” as taking either breathing. We content ourselves here with merely indicating the kind of the attack.

And now that the “common” elements have been destroyed and it has been proved that they are only either shortened or lengthened, it will follow that each of them is twofold, the one sort naturally long, the other naturally short. As then α ι and υ are each 112 twofold, there will no longer be only seven “vocal” elements (or vowels), of which two are long, namely

τε η και το ω, δύο δὲ βραχέα, τό τε ε και το ο, τρία δὲ δίχρονα, τό τε α και ι και υ, ἀλλὰ τὰ σύμπαντα δέκα, και τούτων τὰ πέντε μὲν μακρά, τό τε η και το ω και το μακρόν α και ι και υ, ισάριθμα δὲ τὰ βραχέα, τό ο και το ε και το βραχύν α και ι και υ. ἀλλ' ἐπεὶ οὐ δύο μόνον ὑπειλήφασιν

113 εἶναι προσωδίας γραμματικῶν παῖδες, τὴν τε μακρὰν και βραχεῖαν, ἀλλὰ και ὀξεῖαν βαρεῖαν περισπωμένην δασεῖαν ψιλήν, ἕκαστον τῶν ὑποδεδειγμένων φωναέντων ἔχον τινὰ τούτων καθ' ἰδίαν προσωδίαν γενήσεται στοιχείον· και ᾧ λόγῳ οὐδὲν ἦν κοινὸν μήκους τε και βραχύτητος στοιχείον, ἀλλ' ἢ μακρόν μόνον, ὅτ' εἶχε τὴν μακρὰν, ἢ βραχύν, ὅτ' εἶχε τὴν βραχεῖαν, τῷ αὐτῷ λόγῳ οὐδὲν ἔσται κοινὸν ὀξύτητος και βαρύτητος, ἀλλ' ἢ ὀξύ μόνον, ὅτε προσειλήφει τὴν ὀξεῖαν, ἢ βαρύν, ὅτε τὴν βαρεῖαν. και ἐπὶ τῶν ἄλλων τὸ ἀνάλογον. ἐπεὶ οὖν τὰ μὲν βραχέα δύο ὄντα ἀνὰ πέντε ἐπιδέχεται προσωδίας, βραχεῖαν ὀξεῖαν βαρεῖαν δασεῖαν

114 ψιλήν, δέκα γενήσεται. τὰ δὲ μακρὰ πάλιν δύο ὄντα εἰ ἐκ περισσοῦ προσλαμβάνει και τὴν προσωδίαν τὴν περισπωμένην (μηκύνεται γὰρ ταῦτα και ὀξύνεται και βαρύνεται και δασύνεται και ψιλοῦται και ἰδιαίτερον περισπᾶσθαι πέφυκε), γενήσεται δώδεκα. τὰ δὲ κοινὰ τρία καθεστῶτα <εἰ>¹ τὰς ἑπτὰ προσωδίας καθ' ἕκαστον ἐπιδέχεται,

¹ <εἰ> add. cj. Bekk.

^a προσωδία (cf. § 119) "comprises accent, breathing, and quantity—all the elements in the spoken word which in the ancient mode of writing were left to be supplied by the reader" (Bywater, *Aristotle on Poetry*, p. 336). The symbols were invented to help foreigners. See Rhys Roberts, *Demetrius on Literary Composition*, glossary. The τόνος,

η and ω, and two short, namely ε and ο, and three "dichronous," namely α ι and υ, but the total will be ten; and of these five will be long, namely η and ω and the long α and ι and υ, and the short will be equal in number, namely ο and ε and the short α and ι and υ. But since the School of Grammarians have assumed 113 that there are not only two tensions,^a the long and the short, but also the acute, the grave,^b the circumflex, the rough and the smooth, each of the vowels indicated having some one of these tensions peculiar to itself will become an element; and just as we found that an element was never "common" in respect of length and brevity but was either long only, when it had the long tension added, or short when it had the short, so, by the same reasoning, an element will never be "common" in respect of acuteness and gravity, but will be acute only, when it has received the acute added, or grave, when it has received the grave. So also with the others. Since, then, the short elements, being two, admit of five tensions apiece,—the short, the acute, the grave, the rough and the smooth,—they will become ten. The 114 long ones, again, which are two, if they receive the further addition of the circumflex,—for these elements can naturally take the circumflex as their own special tension as well as the long, the acute, the grave, the rough and the smooth,—will become twelve. And if the "common," being three, each admit of the

which we call accent, is explained by Demetrius as a musical pitch of about a musical fifth, what we call the acute, all the rest is what we call grave accent. The circumflex is a drawl when a vowel with acute slides into one with an unaccented vowel (e.g. when ὁ-μαί becomes οὐ-μαί).

^b The grave is, then, the general monotone of the speaker's voice.

καὶ ταῦτα γίνεται εἴκοσι καὶ ἔν· ὥστε πάντα τεσσαράκοντα καὶ τρία τυγχάνειν· οἷς τῶν δεκαεπτὰ συμφώνων προστιθεμένων ἐξήκοντα γίνεται¹ στοιχεῖα, ἀλλ' οὐκ εἰκοσιτέσσαρα.

115 Ἔστι δὲ καὶ ἕτερος λόγος καθ' ὃν ἀξιούται διαφόρως τὰ φωνάεντα πάλιν στοιχεῖα ἐλάσσονα εἶναι τῶν παρὰ τοῖς γραμματικοῖς θρυλουμένων ἐπτά. εἰ γὰρ τὸ α κατ' αὐτοὺς ἐκτεινόμενον καὶ συστελλόμενον οὐχ ἕτερόν ἐστι στοιχείον ἀλλ' ἐν κοινόν, ὡσαύτως δὲ καὶ τὸ ι καὶ τὸ υ, ἀκολουθήσει καὶ τὸ ε καὶ τὸ η ἐν εἶναι στοιχείον κατὰ τὴν αὐτὴν δύναμιν κοινόν· ἢ γὰρ αὐτὴ δύναμις ἐπ' ἀμφοτέρων ἐστί, καὶ συσταλὲν μὲν τὸ η γίνεται ε, ἐκταθὲν δὲ τὸ ε γίνεται η. κατὰ δὲ τὸν αὐτὸν τρόπον καὶ τὸ ο καὶ τὸ υ μία στοιχείον γενήσεται φύσις κοινή, ἐκτάσει καὶ συστολῇ διαφέρουσα, ἐπεὶ περ τὸ μὲν ω μακρόν ἐστίν, τὸ δὲ ο βραχὺ
116 ἐστίν ω. τυφλώττουσιν οὖν οἱ γραμματικοὶ καὶ τὸ ἀκόλουθον αὐτοῖς οὐ συνορώσι, λέγοντες ἐπτὰ φωνάεντα τυγχάνειν, πέντε μόνων ὄντων πρὸς τὴν φύσιν.

Καὶ ἀναστροφῶς ἔσεσθαι τινὰ φασιν ἔνιοι τῶν φιλοσόφων πλείονα στοιχεῖα, διάφορον ἔχοντα δύναμιν τῶν συνήθως παρατιδομένων, ὅλον καὶ τὸ α καὶ τὸ ου καὶ πάν ὁ τῆς ὁμοίας ἐστὶ φύσεως. τὸ γὰρ στοιχείον κριτέον μάλιστα, ὅτι στοιχείον ἐστίν, ἐκ τοῦ ἀσύνθετον καὶ μονόποιον ἔχει φθόγγον, οἷός ἐστιν ὁ τοῦ α καὶ ε καὶ ο καὶ τῶν
117 λοιπῶν. ἐπεὶ οὖν ὁ τοῦ αἰ καὶ εἰ φθόγγος ἀπλοῦς ἐστὶ καὶ μονοειδής, ἔσται καὶ ταῦτα στοιχεῖα. τεκμήριον δὲ τῆς ἀπλότητος καὶ μονοειδείας τὸ

¹ γίνεται cj. Bekk. : γίνεσθαι mss., Bekk.

seven tensions, they become twenty-one. Hence their total is forty-three; and when to these are added the seventeen consonants, the elements turn out to be sixty and not twenty-four.

There is, on the other hand, a different argument 115 by which it is made out that the vowels are fewer in number than the seven which are so much talked about by the Grammarians. For if the *a* when long and when short is not, according to them, a different element but one "common" element, and so likewise both the *i* and the *v*, then it will also follow that *ε* and *η* are one "common" element as having the same potency; for in the case of both there is the same potency, and *η* when shortened becomes *ε*, while *ε* when lengthened becomes *η*. In the same way *ο* and *ω* will also become one "common" element, differing in length and brevity, since *ω* is long *ο*, and *ο* is short *ω*. The Grammarians, then, are blind and fail to 116 perceive the consequence, when they assert that there are seven vowels, whereas in actual fact there are only five.

Contrariwise, some philosophers declare that there will be some more elements which possess a potency different from those which are usually handed down, —*αι*, for instance, *ου* and every one which is of similar nature. For the "element" must be judged to be an element mainly on the ground that it has a sound which is non-composite and of single quality, such as that of *α* and *ε* and *ο* and the rest. Since, then, 117 the sound of *αι* and of *ει* is simple and of one kind only, these, too, will be elements. And a proof of the simplicity of their sounds and that they are of one kind only is to be found in the following state-

λεχθησόμενον. ὁ μὲν γὰρ σύνθετος φθόγγος οὐχ οἶος ἀπ' ἀρχῆς προσπίπτει τῇ αἰσθήσει, τοιοῦτος ἄχρι τέλους παραμένειν πέφυκεν, ἀλλὰ κατὰ παράτασιν ἑτεροιοῦται, ὁ δὲ ἀπλοῦς καὶ ὄντως τοῦ στοιχείου λόγον ἔχων τούναντιον ἀπ' ἀρχῆς μέχρι τέλους ἀμετάβολός ἐστιν. οἶον τοῦ μὲν ρα φθόγγου ἐν παρατάσει προφερομένου, δῆλον ὡς οὐχ ὡσαύτως αὐτοῦ κατὰ τὴν πρώτην πρόσπτωσιν ἀντιλήφεται ἢ αἰσθησις καὶ κατὰ τὴν τελευταίαν, ἀλλὰ κατ' ἀρχὰς μὲν ὑπὸ τῆς τοῦ ρ ἐκφωνήσεως κινηθήσεται, μεταῦθις δὲ ἐξαφανισθείσης αὐτῆς εἰλικρινοῦς τῆς τοῦ α δυνάμεως ποιήσεται τὴν ἀντίληψιν. ὅθεν οὐκ ἂν εἴη στοιχεῖον τὸ ρα καὶ

118 πᾶν τὸ ἑοικὸς αὐτῷ. εἰ δὲ τὸν τοῦ αἰ φθόγγον λέγοιεν, οὐδὲν ἔσται τοιοῦτον, ἀλλ' οἶον ἀπ' ἀρχῆς ἐξακούεται τῆς φωνῆς ἰδίωμα, τοιοῦτον καὶ ἐπὶ τέλει, ὥστε στοιχεῖον ἔσται τὸ αἰ. τούτου δὲ οὕτως ἔχοντος, ἐπεὶ καὶ ὁ τοῦ εἰ φθόγγος καὶ ὁ τοῦ οἰ¹ μονοειδῆς καὶ ἀσύνθετος καὶ ἀμετάβολος ἐξ ἀρχῆς ἄχρι τέλους λαμβάνεται, ἔσται καὶ οὗτος στοιχεῖον.

119 Ἄλλὰ ἀφέμενοί γε ταύτης τῆς ζητήσεως ἐκεῖνο ἂν λέγοιμεν, ὃ μᾶλλον δύναται θλίβειν τοὺς γραμματικούς. εἰ γὰρ κοινὰ λέγεται στοιχεῖα τρία, α ἰ υ, διὰ τὸ ἐπιδεκτικὰ τυγχάνειν μήκους τε καὶ συστολῆς, ἀκολουθήσει πᾶν στοιχεῖον κοινὸν εἶναι λέγειν. ἐπιδεκτικὸν γάρ ἐστι τῶν τεσσάρων προσωδιῶν, βαρύτητος ὀξύτητος ψιλότητος δασύτητος. ἢ εἴπερ οὐχ ὑπομένουσι πᾶν στοιχεῖον κοινὸν εἶναι λέγειν, μηδ' ἐκεῖνα λεγέτωσαν κοινὰ παρόσον ἐκτάσεως καὶ συστολῆς ἐστὶν ἐπιδεκτικά.

120 Ἦρκει μὲν οὖν ἠπορημένων τῶν στοιχείων τῆς

ment: the composite sound does not naturally remain to the end just the same in quality as when it first strikes the sense-organ, but is altered through its prolongation, whereas the simple sound, which really has the character of "element," is on the contrary unchanged from beginning to end. Thus, when the sound *pa* is prolonged in utterance, it is plain that the sense will not perceive it alike at the first impression and at the last, but will be stirred at first by the utterance of the *p* and afterwards, when this sound has vanished, it will gain the perception of the *a* sound in its purity. Hence, *pa* and all similar vocables will not be elements. But if they should 118 pronounce the sound *ai*, the result will not be at all similar, but its peculiar tone, as heard at the beginning, is just the same at the end, so that *ai* will be an element. And such being the case in respect of *ai*, since the sound *ei* and the sound *oi* are received from beginning to end as of single quality and non-composite and unaltered, these too will be elements.

But letting go this line of inquiry we may state 119 another which is capable of pressing the Grammarians still harder. If the three elements *a*, *i*, and *v* are termed "common" because they are receptive of length and brevity, it will follow that we must say that every element is common, for it is receptive of the four tensions, gravity, acuteness, smoothness, roughness. Else, if they cannot endure to say that every element is common, neither let them term those three common on the ground that they are receptive of length and brevity.

It would have been sufficient to have put an end to 120

¹ οἰ Coraes: ου MSS., Bekk.; <καὶ ὁ τοῦ αἰ> add. cj. War-
mington.

γραμματικῆς πέρας ἐπιτεθεικέναι τῇ ζητήσει τίς γὰρ ἀπολείπεται λόγος περὶ τῶν μετὰ τὰς ἀρχὰς τοῖς τὰς ἀρχὰς οὐκ ἔχουσι γραμματικοῖς; ὁμῶς δ' οὖν ἐνδοτέρω προχωροῦντας οὐκ ἔστιν ἀλλότριον κἀκείνων δείγματος χάριν ἀποπειραθῆναι. καὶ ἐπεὶ ἐκ στοιχείων αἱ συλλαβαὶ εἰσι, <τὰ>¹ περὶ τούτων ἐπισυνάπτωμεν.

ς'.—ΠΕΡΙ ΣΥΛΛΑΒΗΣ

- 121 Πᾶσα οὖν συλλαβὴ ἢ μακρὰ ἔστιν ἢ βραχεῖα. μακρὰ δὲ γίνεται, φασί, διχῶς, φύσει τε καὶ θέσει, φύσει μὲν τριχῶς, ἢ ὅταν ἔχη στοιχείον φύσει μακρὸν ὡς ἐπὶ τῆς ἠώς λέξεως, ἑκατέρα γὰρ τούτων τῶν συλλαβῶν ἔστι μακρὰ διὰ τὸ τὴν μὲν τὸ η τὴν δὲ τὸ ω φύσει ἔχειν μακρὸν, ἢ ὅταν ἐκ δυοῖν φωναέντων συνεστήκη ὡς ἐπὶ τῆς αἰεί λέξεως, αἱ γὰρ δύο συλλαβαὶ μακრაὶ τῷ ἑκατέραν ἐκ δυοῖν φωναέντων ὑπάρχειν, ἢ ὅταν κοινὸν ἔχη τὸ στοιχείον μακροτόνως παρειλημμένον ὡς ἐπὶ τῆς Ἄρης· τὸ γὰρ α δίχρονον νῦν μακροτόνως ἐκ-
122 φέρεται. οὐκοῦν φύσει τριχῶς μηκύνεται συλλαβὴ, θέσει δὲ πενταχῶς, ἤτοι ὅταν εἰς σύμφωνα τῶν ἀπλῶν λήγη δύο, ἢ ὅταν ἢ μετ' αὐτὴν συλλαβὴ ἀπὸ συμφώνων δύο ἀρχῆται, ἢ ὅταν εἰς σύμφωνον λήγη καὶ ἀπὸ συμφώνου ἢ ἐξῆς ἀρχῆται, ἢ ὅταν εἰς διπλοῦν λήγη στοιχείον, ἢ ὅταν μετ' αὐτὴν
123 διπλοῦν ἐπιφέρηται. εἰ δὴ πᾶσα συλλαβὴ ἤτοι μακρὰ ἔστιν ἢ βραχεῖα κατὰ τοὺς ὑποδεδειγμένους τῆς τεχνολογίας τρόπους, εἰς παραστήσωμεν μηδετέραν οὐσαν αὐτῶν, δηλὸν ὡς οὐδὲ λέξιν

¹ <τὰ> add. Heintz.

our investigation at this point, now that the "elements" of the Art of Grammar have been shown to be doubtful; for what is left for the Grammarians to say about what comes after their principles when they do not possess those principles? None the less, it is not irrelevant to penetrate further and, as a sample, to test also what follows the principles. And since the "syllables" are formed from the "elements," let us subjoin a discussion of these.

CHAPTER VI.—CONCERNING THE SYLLABLE

Every syllable is either long or short. It is long, 121 they say, in two ways, by nature and by position: by nature it is long in three cases, either when it has an element which is naturally long, as in the word ἠώς, for each of these syllables is long since the one contains η, the other ω, which are naturally long; or when it is composed of two vowels, as in the word αἰεί, for the two syllables are long since each is made up of two vowels; or when it has its element "common" and pronounced with a long tension, as in the case of Ἄρης; for the "dichronous" α is now uttered with a long tension. Thus the syllable is long by 122 nature in three ways, but by position in five ways, either when it ends with two of the simple consonants; or when the next syllable begins with two consonants; or when it ends with a consonant and the next begins with a consonant; or when it ends with a double element; or when a double element is inserted after it.—If every syllable is either long or short in the ways 123 indicated in their "technology," then if we shall establish that neither of these syllables exists, it is plain that the Grammarians will not have a "word"

ἔξουσιν οἱ γραμματικοί· καθὰ γὰρ τῶν στοιχείων ἀναιρουμένων συναιρουῦνται καὶ αἱ συλλαβαί, οὕτω καὶ τῶν συλλαβῶν μὴ οὐσῶν οὔτε αἱ λέξεις γενήσονται οὔτε κοινῶς τὰ τοῦ λόγου μέρη, διὰ δὲ τοῦτ' οὐδὲ λόγος.

- 124 Ἴν' οὖν ἢ τις βραχεῖα συλλαβή, δεῖ προωμολογήσθαι ὅτι ἐλάχιστος καὶ βραχὺς ἔστι χρόνος, ἐν ᾧ ὑφίσταται. οὐκ ἔστι δὲ ἐλάχιστος χρόνος· πᾶς γὰρ εἰς ἄπειρον τέμνεται, ὡς ἐν τοῖς ὑστερον δείξομεν· εἰ δὲ εἰς ἄπειρον τέμνεται, οὐκ ἔστιν ἐλάχιστος. οὐκ ἄρα ἔσται βραχεῖα συλλαβὴ βραχὺν ἔχουσα χρόνον. εἰ δὲ λέγοιεν νῦν βραχεῖαν καλεῖν καὶ ἐλαχίστην συλλαβὴν οὐ τὴν πρὸς φύσιν ἐλαχίστην οὐσαν ἀλλὰ τὴν πρὸς αἴσθησιν, ἑαυτοῖς
 125 προσαύξουσι τὴν ἀπορίαν. τὰς γὰρ λεγομένας παρ' αὐτοῖς βραχεῖας συλλαβὰς εὐρήσομεν ὡς πρὸς αἴσθησιν μεριστάς, ὅλον τὴν ἐρ. αἰσθητῶς γὰρ ἐπιβάλλομεν ἐπ' αὐτῆς ὅτι προεκφωνεῖται τῆς τοῦ ρ δυνάμεως ἢ τοῦ ε δύναμις. καὶ ἐναλλάξαντες εἰ λέγομεν ρε, πάλιν ἀντιληψόμεθα ὅτι πρώτη μὲν ἔστι κατὰ τὴν τάξιν ἢ τοῦ ρ δύναμις, δευτέρα
 126 δὲ ἡ τοῦ ε. ἐπεὶ οὖν πᾶν ὃ πρῶτον καὶ δευτέρον μέρος ἔχει πρὸς αἴσθησιν, οὐκ ἔστιν ἐλάχιστον πρὸς αἴσθησιν, φαίνεται δὲ ἡ κατὰ τοὺς γραμματικούς βραχεῖα συλλαβὴ πρῶτον καὶ δευτέρον ἔχουσα, οὐκ ἂν εἴη πρὸς αἴσθησιν ἐλαχίστη¹ καὶ βραχεῖα συλλαβή. μουσικοὶ μὲν γὰρ ἴσως ἀλόγους τινὰς χρόνους καὶ φωνῶν παραυξήσεις δινησονται ἀπολιπεῖν· τοῖς δὲ μὴ χωροῦσι τὸ τοιοῦτον βάθος [γραμματικοῖς] τῆς ἀπειρίας,² ἀλλ' αὐτὸ μόνον

¹ ἐλαχίστη cj. Bekk. : ἐλάχιστος mss., Bekk.

² ἀπειρίας Fabr. : ἀπορίας Bekk.

either ; for just as when the elements are destroyed the syllables, too, are destroyed with them, so also, if the syllables are non-existent, neither the words will exist nor the parts of speech in general, nor, consequently, speech itself.

In order that a short syllable may exist, it must ¹²⁴ be settled beforehand that there is a minimal and a short time wherein it exists : but there is not a minimal time, for every period of time is divided to infinity,^a as we shall prove later on ; and if it is divided to infinity it is not minimal. Hence, there will not exist a short syllable occupying a short time.— And if they should now say that what they are calling a short and minimal syllable is not that which is minimal by nature but that which is minimal for sense, they will be adding to their difficulty. For we ¹²⁵ shall find that what are termed by them short syllables are divisible for sense,—for example the syllable ἐρ. For in its case we perceive by sense that the sound ε is uttered before the sound ρ. And conversely, if we were to say ρε, we shall again perceive that the sound ρ comes first in order and the sound ε second. Since, then, everything which has ¹²⁶ for sense a first part and a second is not a minimal for sense, and since the short syllable of the Grammarians evidently has a first part and a second, there will not exist for sense a minimal and short syllable. Musicians perhaps will be able to leave us certain irrational times and extensions of tones ; but to those who have no room for such a depth of infinitude, but

^a Cf. Adv. Mus. 62.

εἰς βραχεῖαν καὶ μακρὰν διαιρουμένοις τὴν γενικὴν συλλαβὴν, οὐκ ἔστι συγγνωμονεῖν δίκαιον. οὐκοῦν ἀνυπόστατός ἐστιν ἡ βραχεῖα συλλαβή.

- 127 Καὶ μὴν ἡ μακρὰ πάλιν ἔσται ἀνύπαρκτος· δίχρονον μὲν γὰρ αὐτὴν εἶναι λέγουσι, δύο δὲ χρόνοι οὐ συνυπάρχουσιν ἀλλήλοις. εἰ γὰρ δύο εἰσὶ, τούτῳ διορίζονται ὅτι εἰσὶ δύο, τῷ τὸν μὲν ἐνεστήκεναι τὸν δὲ μὴ· εἰ δὲ ὅς μὲν ἐνέστηκεν ὅς δὲ οὐκ ἐνέστηκεν, οὐ συνυπάρχουσιν ἀλλήλοις.
- 128 διόπερ καὶ ἡ μακρὰ συλλαβὴ εἶπερ ἐστὶ δίχρονος, ὀφείλει, ὅτε μὲν αὐτῆς ἐνέστηκεν ὁ πρῶτος χρόνος, τότε ὁ δεῦτερος μὴ ἐνεστήκεναι, καὶ ὅτε ὁ δεῦτερος ἐνίσταται, τότε ὁ πρῶτος μηκέτι εἶναι. ἀσυνυπάρκτων δὲ αὐτῆς ὄντων τῶν μερῶν ὅλη μὲν οὐχ ὑφέστηκε, μέρος δὲ τι αὐτῆς. ἀλλὰ τό γε μέρος αὐτῆς οὐκ ἦν αὐτή, ἐπεὶ οὐ διοίσει τῆς βραχεῖας
- 129 ἡ μακρὰ συλλαβή. οὐκ ἄρα οὐδὲ μακρὰ τις ἔστι συλλαβή. εἰ δὲ λέγοιεν κατὰ συμμνημόνευσιν νοεῖσθαι μακρὰν συλλαβὴν (τοῦ γὰρ προλεχθέντος φθόγγου μνημονεύοντες καὶ τοῦ νῦν λεγομένου ἀντιλαμβανόμενοι τὸ ἐξ ἀμφοτέρων συντιθέμενον μακρὰν ἐνενοήσαμεν συλλαβὴν)—εἰ δὴ τοῦτο λέγουσι, οὐδὲν ἄλλο ἢ ἀνυπόστατον ὁμολογήσουσιν
- 130 εἶναι τὴν τοιαύτην συλλαβὴν. εἰ γὰρ ὑφέστηκεν, ἦτοι ἐν τῷ προαναφωνουμένῳ φθόγγῳ ὑφέστηκεν ἢ ἐν τῷ ἐπαναφωνουμένῳ. οὔτε δὲ ἐν τῷ προαναφωνουμένῳ οὔτε ἐν τῷ ἐπαναφωνουμένῳ· ἐκάτερος γὰρ αὐτῶν κατ' ἰδίαν μὴ ὑφέστως οὐδὲ τὴν ἀρχὴν συλλαβὴ ἔστιν· ὥστε οὐδὲ ὑφέστηκεν. ὑφέστῳσα¹ δὲ βραχεῖά ἐστιν ἀλλ' οὐ μακρὰ συλλαβή. οὔτε

¹ ὑφέστῳσα cj. Bekk. : ὑφέστως mss., Bekk.

merely divide the class of syllables into short and long, it is not right to extend pardon. Wherefore the short syllable is non-existent.

Moreover, the long syllable, too, will be non-existent; for they say that it is "dichronous" (or two-timed), but two times do not co-exist with each other. For if they are two, they are distinguished as being two by the fact that the one is in present existence, the other not; but if one is present and the other is not present, they do not co-exist with each other. Consequently, if the long syllable is "dichronous," it must follow that when its first time is present, then its second is not present, and when the second becomes present, then the first no longer exists. And as its parts are not co-existent the whole syllable does not exist but only a part of it; but the part of it is not itself, since otherwise the long syllable will not differ from the short. Therefore no long syllable exists. And if they should say that the long syllable is perceived through "joint memory" (that is to say, that it is by remembering the sound already uttered and sensing that which is now being uttered that we have perceived the combination of both as a long syllable),—if they should say this, they will simply be confessing that a syllable such as this is non-existent. For if it exists, it exists either in the sound pronounced first or in that pronounced later; but it does not exist either in the sound pronounced first or in that pronounced later; for as neither of these exists by itself, it is not a syllable at all; so that the long syllable does not exist. But if it exists, it is a short, and not a long, syllable. Nor, again, does it

^a Or "concurrent recollection," a Stoic term, cf. P.H. iii. 108.

δὲ ἐν ἀμφοτέροις· ὁ γὰρ ἕτερος αὐτῶν τοῦ ἑτέρου ὑφεστῶτος οὐχ ὑφέστηκεν, ἐκ δὲ τοῦ ὑπάρχοντος καὶ μὴ ὑπάρχοντος οὐδὲν ἔστιν ἐπινοῆσαι συγκείμενον ὡς ἐκ μερῶν. οὐκ ἄρα ἔστι τις μακρὰ συλλαβή.

- 131 Ἀνάλογον δὲ τούτοις ἐστὶ καὶ τὰ περὶ λέξεως καὶ τῶν τοῦ λόγου μερῶν ἀπορεῖσθαι οφείλοντα. πρῶτον μὲν γάρ, ὡς μικρῶ πρότερον ὑπεδείκνυμεν, μὴ οὔσης συλλαβῆς μηδὲ λέξις εἶναι δυνατόν· ἐκ συλλαβῶν γὰρ αἱ λέξεις λαμβάνουσι τὴν ὑπόστασιν. εἶτα καὶ κατὰ τὴν αὐτὴν ἔφοδον ἐξέσται προηγουμένως ἐπ' αὐτῆς τῆς λέξεως τὰς αὐτὰς χειρίζειν ἀπορίας. ἢ γὰρ συλλαβὴ ἐστὶν ἢ ἐκ συλλαβῶν συνέστηκεν· ὅπως δ' ἂν ἔχη, τὰς ἐκκειμένας ἡμῖν
- 132 ἐπὶ τῆς συλλαβῆς ἀπορίας ἐπιδέξεται. ἀλλ' ὁμως ἵνα μὴ καινοτέρων ἐλέγχων ἀπορεῖν δοκῶμεν, προσφωνητέον τι κἀνταῦθα τοῖς γραμματικοῖς.

Ἢ γὰρ μέρη τινὰ λόγου καλῶσιν, οἷον ὄνομα ῥῆμα ἄρθρον καὶ τὰ λοιπά, πόθεν λαβόντες; ἢτοι γὰρ ταῦτα ὄλον¹ τὸν λόγον καλοῦσιν, ἢ ταῦτα μέρη ἐκείνου, μήτε δ' ἐκείνου ὡς ὄλου νοεῖσθαι δυναμένου μήτε τούτων ὡς μερῶν ἐκείνου. λαμβανέσθω δὲ τὰ εἰς τὴν ὑπόθεσιν παραδείγματα, ὡς μὴ ἀπίωμεν² τῶν τῆς γραμματικῆς θεωρημάτων.

133 ἔστω τοίνυν ὑποθέσεως χάριν λόγος μὲν ὁ σύμψας οὗτος ὁ στίχος,

μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος,

μέρη δὲ αὐτοῦ ταῦτα, τό τε μῆνιν προσηγορία

¹ ὄλον cj. Bekk.: ὄλα mss., Bekk.

² ἀπίωμεν scripsi: ἀπίωμεν mss., Bekk. (ἀποστῶμεν cj. Bekk.).

* Cf. § 123.

exist in both the sounds; for when the one of them exists the other does not exist, and from an existent and a non-existent it is impossible to conceive anything compounded as though from parts. Hence no long syllable exists.

Analogous to these are the difficulties which ought 131 to be raised regarding the "word" and the "parts of speech." For in the first place, as we showed a short while ago,^a if the syllable does not exist, the "word" cannot exist either; for words derive their substance from syllables. And next, in the same line of attack, it will be possible to employ the same objections directly against the "word" itself. For either it is a syllable or it is composed of syllables; but in either case it will be open to the objections we set forth against the syllable. All the same, lest we 132 should appear to be at a loss for fresh arguments, we must have something to say on this point also to the Grammarians.

When they term certain things "parts of speech,"—such as the name (or noun), the verb, the article, and the rest,—whence do they derive the designation? For they designate them thus either as being the whole of speech or as being parts of it, when neither can speech be conceived as a whole nor these as its parts. Let us take examples which bear on 133 their assumption, so that we may not depart from the theorems of Grammar. Let us suppose, then, that the whole of this verse is a "speech" (or sentence)—μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος

(Sing, O goddess, the wrath of the son of Peleus, Achilles),^b

and that its parts are these,—μῆνιν, which is a noun,

^b This is the first verse of the *Iliad*: cf. *Adv. Phys.* i. 350.

καθεστώς, καὶ τὸ ἄειδε ῥήμα προστακτικόν, καὶ τὸ θεά προσηγορία πάλιν θηλυκή, καὶ τὸ Πηληιάδew ὄνομα πατρωνυμικόν, πρὸς δὲ τούτοις καὶ τὸ ἄχιλῆος ὄνομα κύριον. οὐκοῦν ἤτοι ἄλλο τί ἐστὶν ὁ λόγος παρὰ τὰ μέρη αὐτοῦ καὶ ἄλλα τὰ μέρη παρὰ τὸν λόγον, ἢ τὸ ἄθροισμα τῶν μερῶν ὁ λόγος ὑπέλληπται. καὶ εἰ μὲν ἄλλο τι τῶν μερῶν ἐστὶν ὁ λόγος, αἰρομένων δηλονότι τῶν ἐκκειμένων τοῦ λόγου μερῶν ὑπολειφθήσεται ὁ λόγος. τοσοῦτον δὲ ἀπέχει ὁ προειρημένος στίχος τοῦ μένει πάντων αἰρομένων αὐτοῦ τῶν μερῶν, ὡς κἂν ἐν ὀδηποτοῦν αὐτοῦ μέρος ἀνέλωμεν, οἶον τὸ μῆνιν ἢ τὸ ἄειδε, 134
 134 μῆκετι στίχος ὑπάρχειν. εἰ δὲ τὸ ἄθροισμα τῶν τοῦ λόγου μερῶν νοεῖται λόγος, τῷ μηδὲν εἶναι τὸν ἄθροισμὸν παρὰ τὰ ἠθροισμένα καθάπερ καὶ τὸ διάστημα παρὰ τὰ διεστηκότα, οὐδὲν ὑπάρξει ὁ λόγος οὐ νοηθήσεται τινα μέρη. μηδενὸς δὲ ὄντος ὅλου λόγου οὐδὲ μέρη τινα τούτου γενήσεται. ὡσπερ οὖν εἰ μηδὲν ἐστὶν ἀριστερόν, οὐδὲ δεξιὸν ἐστὶν, οὕτως εἰ μὴ ἐστὶ τι ὅλον λόγος, οὐδὲ τὰ 135
 136 μέρη ὑπάρξει. καθόλου τε, εἰ τὸν ἄθροισμὸν τῶν τοῦ λόγου μερῶν ὅλον ἠγήσονται λόγον, ἀκολουθήσει αὐτοῖς τὰ μέρη τοῦ λόγου ἀλλήλων λέγειν εἶναι μέρη. εἰ γὰρ μηδὲν ὑπόκειται ὅλον παρ' αὐτὰ οὐ γενήσεται μέρη, ἀλλήλων ἔσται μέρη.
 137 τοῦτο δὲ ὡς ἔστιν ἀλογώτατον, σκοπῶμεν. τὰ γὰρ μέρη πάντως ἐμπεριέχεται ἐκείνοις τοῖς ὄλοις¹ ὧν λέγεται μέρη, ἴδιον τόπον ἐπέχοντα καὶ ἰδίαν ὑπόστασιν ἔχοντα, ἐν ἀλλήλοις δὲ οὐκ ἐμπεριέχεται. οἶον ἀνθρώπου μὲν μέρη χεῖρες

¹ (ὄλοις) addidi.

and ἄειδε an imperative verb, and θεά also a noun and feminine, and Πηληιάδew a patronymic noun, and besides these ἄχιλῆος a proper noun. Then either 134 the sentence is something else than its parts and the parts something else than the sentence, or the aggregate of the parts is assumed to be the sentence. And if the sentence is something else than its parts, then it is plain that when the expressed parts of the sentence are removed the sentence will be left. But the verse we have given above is so far from remaining when all its parts are removed that, if we should remove even any one single part, such as μῆνιν or ἄειδε, the verse ceases to exist. But if the aggre- 135 gate of the parts of the sentence is conceived to be a sentence, then because the aggregation is nothing apart from the parts aggregated, just as distance is nothing apart from the objects which are distant, the sentence of which any parts shall be conceived will not be anything. And when the whole sentence is nothing, neither will any parts of it exist. Thus, just as, if there is no left-hand, neither is there a right-hand, so too if a sentence does not exist as a whole, neither will its parts exist.—If, then, they shall regard 136 the aggregation of the parts of the sentence as the whole sentence, the general consequence will be that they will have to say that the parts of the sentence are parts of one another. For if no whole subsists other than themselves whereof they may be parts, they will be parts of one another. But let us consider how extremely irrational this is. For the parts are 137 certainly included in the wholes of which they are said to be parts, each occupying its own place and having its own reality, but they are not included in one another. For example, the hands are parts of the

καθεστᾶσι, χειρῶν δὲ δάκτυλοι καὶ δακτύλων ὄνυχες. διόπερ ἐν μὲν ἀνθρώπῳ χεῖρες περιέχονται, ἐν χερσὶ δὲ δάκτυλοι, ἐν δακτύλοις δὲ ὄνυχες, καὶ οὐχ ἡ μὲν δεξιὰ χεὶρ τὴν ἀριστερὰν συμπληροῖ, ὁ δὲ λιχανὸς τὸν ἀντίχειρα δάκτυλον ἀπαρτίζει, ἡ δὲ κεφαλὴ τοὺς πόδας συντίθησι καὶ οἱ πόδες 138 τὸν θώρακα. ὅθεν καὶ τὰ μέρη τοῦ λόγου οὐ ῥητέον ἀλλήλων εἶναι μέρη, ἐπεὶ ἐν ἀλλήλοις αὐτὰ δεήσει περιέχεσθαι, τὸ μὲν μῆνιν ἐν τῷ ἄειδε, τὸ δὲ ἄειδε ἐν τῷ θεά, καὶ καθόλου πάντα ἐν πάσιν, ὅπερ ἀδύνατον. οὐ τοίνυν ἀλλήλων τῶν τοῦ λόγου μερῶν δυναμένων εἶναι μερῶν διὰ τὸ ἀνόητον τοῦ πράγματος, οὔτε ὅλου τινὸς εὕρισκομένου λόγου παρὰ τὰ ἑαυτοῦ μέρη, μηδενὸς τε εὕρισκομένου πράγματος παρ' αὐτὰ τὰ μέρη οὐ λέξομεν εἶναι τὰ μέρη, λείπεται λέγειν ὡς οὐδὲν ἔστι μέρος λόγου. διὰ δὲ τούτ' οὐδὲ λόγος.

139 Ἐπακτέον δὲ καὶ οὕτως. εἶπερ τὸ μῆνιν μέρος ἐστὶ τοῦ στίχου, ἤτοι ὅλου τοῦ στίχου μέρος ἐστὶν ἢ τοῦ "ἄειδε θεὰ Πηληιάδω Ἀχιλῆος." ἀλλ' εἰ μὲν τοῦ ὅλου στίχου μέρος ἐστίν, ἐπεὶ ὅλος σὺν αὐτῷ τῷ μῆνιν νοεῖται, καὶ ἑαυτοῦ μέρος συμπληρωτικὸν γενήσεται τὸ μῆνιν, διὰ δὲ τούτο καὶ μείζον ἑαυτοῦ καὶ ἥττον, μείζον μὲν ἑαυτοῦ ἢ συμπληροῦται ὑφ' ἑαυτοῦ (τὸ γὰρ ὑπὸ τινος συμπληρούμενον μείζον ἐστὶ τοῦ συμπληροῦντος αὐτό), ἔλασσον δὲ ἢ συμπληροῖ ἑαυτό· τὸ γὰρ τινος συμπληρωτικὸν ἔλασσόν ἐστι τοῦ συμπληρουμένου. οὐ πάνυ δὲ ταῦτα πιθανά· οὐκ ἄρα τοῦ 140 ὅλου στίχου μέρος ἐστὶ τὸ μῆνιν. καὶ μὴν οὐδὲ τοῦ λειπομένου, φημὶ δὲ τοῦ "ἄειδε θεὰ Πηληιάδω Ἀχιλῆος." πρῶτον μὲν γὰρ τὸ μέρος

man, the fingers of the hand, and the nails of the fingers. Hence the hands are included in the man, the fingers in the hand, and the nails in the fingers; but the right hand does not help to fill up the left, nor does the forefinger complete the thumb, nor the head compose the feet, nor the feet the chest. Hence also 138 we must not say that the parts of the sentence are parts of one another, for if so they will have to be included in one another,—μῆνιν in ἄειδε, ἄειδε in θεά, and in short all in all,—which is impossible. Since, then, the parts of the sentence cannot be parts of one another, because the thing is inconceivable, and since no whole sentence is found other than its own parts, and nothing is found other than the parts themselves whereof we can say that they are the parts, it remains to say that no part of the sentence exists. Consequently, neither does the sentence exist.

We may also make the following attack. If μῆνιν 139 is a part of the verse, it is either a part of the whole verse or of ἄειδε θεὰ Πηληιάδω Ἀχιλῆος. But if it is a part of the whole verse, then, since it is with the inclusion of μῆνιν itself that the verse is conceived as a whole, μῆνιν will come to be a supplementary part of itself, and therefore both greater and less than itself; it will be greater than itself inasmuch as it is supplemented by itself (for that which is supplemented by anything is greater than the thing which supplements it), and it will be less inasmuch as it supplements itself (for that which supplements anything is less than the thing supplemented). But these results are by no means credible; therefore μῆνιν is not a part of the whole verse. Nor, in fact, is it a part of the re- 140 mainder of the verse,—I mean of ἄειδε θεὰ Πηληιάδω Ἀχιλῆος. For, firstly, the part is included in that

περιέχεται ἐν τῷ οὐ ἔστι μέρος, τὸ δὲ μῆνιν οὐκ ἐμπεριέχεται ἐν τῷ "ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος," ὥστε οὐκ ἂν εἴη μέρος τούτου. εἶτα δὲ οὐδὲ τὸ "ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος" χρήζει συμπληρώσεως· κατὰ γὰρ τὸν ἴδιον λόγον συμπληθῆρωται. ἀλλὰ ὅλος ὁ λόγος, λέγω δὲ ὁ στίχος, οὐκ ἔστι τὸ "ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος." τοίνυν οὐδὲ τούτου μέρος ἔστι τὸ μῆνιν. ἀλλ' εἰ μήτε τοῦ ὅλου στίχου μέρος ἔστι τὸ μῆνιν μήτε τοῦ ἀπολειπομένου μέρους, παρὰ δὲ ταῦτα οὐδὲν ἄλλο ὑπόκειται, οὐδενὸς λόγου μέρος ἔστι τὸ μῆνιν.

141 Ταῦτα μὲν οὖν καθολικώτερον πρὸς τὰ μέρη τοῦ λόγου ρητέον· ἐμβάντες δὲ εἰς τὰς κατὰ μέρος παρ' αὐτοῖς περὶ τούτων τεχνολογίας πολὺν λῆρον εὐρήσομεν. καὶ τοῦτο πάρεστι μαθεῖν οὐκ ἐπὶ τὴν πᾶσαν ὕλην φοιτήσαντας (ἀδόλεσχον γὰρ ἔστι καὶ γραμματικῆς γρασιολογίας πλήρες), ἀλλ' ὁμοίον τι τοῖς οἰνοκαπήλοις ποιήσαντας,¹ καὶ ὃν τρόπον ἐκεῖνοι ἐξ ὀλίγου γεύματος τὸν ὅλον δοκιμάζουσι φόρτον, οὕτω καὶ αὐτοὶ ἐν λόγῳ μέρος προχειρισάμενοι, καθάπερ τὸ ὄνομα, ἐκ τῆς περὶ τούτου τεχνολογίας συνοψόμεθα καὶ τὴν ἐν τοῖς ἄλλοις τῶν γραμματικῶν ἐντρέχειαν.

Ζ'.—ΠΕΡΙ ΟΝΟΜΑΤΟΣ

142 Αὐτίκα τοίνυν ὅταν τῶν ὀνομάτων τὰ μὲν ἀρσενικὰ φύσει λέγωσι τὰ δὲ θηλυκὰ τὰ δὲ οὐδέτερα, καὶ τὰ μὲν ἐνικὰ τῷ ἀριθμῷ τὰ δὲ δυϊκὰ τὰ δὲ πληθυντικά, καὶ ἤδη τὰς ἄλλας ἐπισυνείρωσι

whereof it is a part, but μῆνιν is not included in ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος, so that it will not be a part thereof. And next, the phrase ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος does not need supplementing; for it is a complete sentence in itself. But the whole sentence, —I mean the verse,—is not ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος. Thus μῆνιν is not a part of this (remainder) either. But if μῆνιν is a part neither of the whole verse nor of its remaining part, and nothing else besides these exists, then μῆνιν is not a part of any sentence.

These are the objections to be stated against the 141 parts of speech (or of the sentence) in general; and when we go on to their particular technical theories regarding them we shall find much idle talk. This we may learn not by roving over the whole field (for it is empty verbiage and full of the old wives' prattle of the Grammarians), but rather by doing much as the wine-merchants do; for just as they judge of the whole cargo from a little taste, so too we, when we have first dealt with a single part of speech, such as the noun, will gain, from their "technology" concerning this, a general view of the skill of the Grammarians in treating of the other parts.

CHAPTER VII.—CONCERNING THE NOUN

When, for instance, they say that some nouns are 142 "naturally" masculine, some feminine and some neuter, and some singular in number, some dual and some plural, and link on to these all their other

¹ ποιήσαντας Fabr.: ποιήσαντες MSS., Bekk.

143 διαίρεσεις, ἐπιζητήσωμεν τί ποτε ἔστι τὸ ἐπι-
 φωνούμενον τοῦτο φύσει. ἢ γὰρ ὅτι οἱ πρῶτοι
 ἀναφθεγξάμενοι τὰ ὀνόματα φυσικὴν ἐποίησαντο
 τὴν ἀναφώνησιν αὐτῶν ὡς καὶ τὴν ἐπὶ τῷ ἀλγείν
 κρανυγῆν καὶ τὴν ἐπὶ τῷ ἠδεσθαι ἢ τῷ θαυμάζειν
 ἐκβόησιν, οὕτω λέγουσι φύσει τὰ μὲν τοιαῦτα εἶναι
 τῶν ὀνομάτων τὰ δὲ τοιάδε· ἢ ὅτι καὶ ἐπὶ τοῦ
 παρόντος ἕκαστον αὐτῶν φυσικῶς ἡμᾶς κινεῖ ὅτι
 ἀρρενικόν, κἂν ἡμεῖς μὴ νομίζωμεν αὐτὸ ἀρρενικόν
 εἶναι, καὶ πάλιν φυσικῶς αὐτὸ ἐνδείκνυται ὅτι
 144 θηλυκόν ἐστι, κἂν ἡμεῖς μὴ θέλωμεν. ἀλλὰ τὸ
 μὲν πρῶτον οὐκ ἂν εἴπωμεν. πόθεν γὰρ γραμ-
 ματικῇ παχύτητι διαγωνίσκειν πότερον φύσει ἢ
 θέσει τὰ ὀνόματα, ἢ τινὰ μὲν οὕτως τινὰ δὲ ἐκείνως;
 ὅτε οὐδὲ τοῖς ἐπ' ἄκρον ἤκουσι φυσιολογίας εὐ-
 145 μαρῆς εἰπεῖν διὰ τὰς ἐκατέρωθεν ἰσολογίας. ἄλλως
 τε καὶ ἰσχυρὸς ἀντικάθηται τούτῳ λόγος, πρὸς
 ὃν οὐδ' εἰ καταπέλτην ὑπομένοινεν, φασίν, οἱ γραμ-
 ματικοὶ δυνήσονται τι συνιδεῖν ἰκνούμενον. εἴπερ
 γὰρ φύσει τὰ ὀνόματα ἦν καὶ μὴ τῇ καθ' ἕκαστον
 θέσει σημαίνει, ἐχρῆν πάντας πάντων ἀκούειν,
 Ἑλλήνας βαρβάρων καὶ βαρβάρους Ἑλλήνων καὶ
 βαρβάρους βαρβάρων. οὐχὶ δὲ γε τοῦτο· οὐκ ἄρα
 φύσει σημαίνει τὰ ὀνόματα. ὥστε τοῦτο μὲν οὐκ
 146 ἐροῦσιν· εἰ δ' ὅτι φυσικῶς διαδείκνυσιν ἕκαστον
 ὄνομα ὅτι ἀρρενικόν ἐστὶν ἢ θηλυκόν ἢ οὐδέτερον,
 φασὶ τὰ μὲν τοιάδε τὰ δὲ τοιαῦτα τυγχάνειν,
 ἴστωσαν λειότερον αὐτοῖς τρίβοντες τὸν κλοιόν.
 147 πάλιν γὰρ φήσομεν ὅτι τὸ φύσει κινοῦν ἡμᾶς

• Cf. P.H. ii. 214, iii. 267.

distinctions, let us inquire what exactly is meant by
 the designation "naturally." Either it means that 143
 those who first gave utterance to the nouns produced
 their "natural" sound; and just as crying is natural
 in pain and shouting in joy or in admiration, so some
 nouns, they say, are "naturally" of this sort and
 others of that sort. Or else it means that at the
 present moment each of them naturally affects us as
 being masculine, even if we do not consider that it
 is masculine, or again naturally indicates that it is
 feminine, even if we are not willing. But they will 144
 not declare for the first alternative; for how could the
 Grammarians' stupidity decide whether names are
 due to nature or to convention, or some to the one
 and some to the other, when even for those who have
 attained the summit of natural science it is no easy
 matter to settle because of the equipollence of the
 arguments on either side? Moreover, this view is 145
 confronted by a strong argument to which the Gram-
 marians—even if they could (as men say) stand up
 against a bolt from a cross-bow—will be unable to
 discover any fitting reply. If nouns exist "by
 nature" and are not significant in each instance by
 reason of convention, then all men ought to under-
 stand the speech of all, Greeks that of barbarians
 and barbarians that of Greeks and barbarians that of
 (other) barbarians.^a But this is not the case; there-
 fore nouns are not "naturally" significant. This, then,
 they will not assert.—But if it is because each noun 146
 "naturally" indicates that it is masculine or feminine
 or neuter that they assert that some are of this sort
 and others of that sort, let them know that they are
 rubbing their collar smoother. For we shall tell them 147
 again that what affects us "naturally" affects all men

ὁμοίως πάντας κινεῖ, καὶ οὐχ οὓς μὲν οὕτως οὓς δὲ ἐναντίως. οἶον φύσει τὸ πῦρ ἀλεαίνει, βαρβάρους Ἑλληνας, ἰδιώτας ἐμπείρους, καὶ οὐχ Ἑλληνας μὲν ἀλεαίνει βαρβάρους δὲ ψύχει· καὶ ἡ χιών φύσει ψύχει, καὶ οὐ τινὰς μὲν ψύχει τινὰς δὲ θερμαίνει. ὥστε τὸ φύσει κινεῖν ὁμοίως τοὺς ἀπαραποδίστους

148 ἔχοντας τὰς αἰσθήσεις κινεῖ. τὰ δὲ αὐτὰ ὀνόματα οὐ πᾶσιν ἔστι τὰ αὐτά, ἀλλὰ τοῖς μὲν ἀρρενικὰ τοῖς δὲ θηλυκὰ τοῖς δὲ οὐδέτερα. οἶον Ἀθηναῖοι μὲν τὴν στάμνον λέγουσι θηλυκῶς, Πελοποννήσιοι δὲ τὸν στάμνον ἀρρενικῶς, καὶ οἱ μὲν τὴν θόλον οἱ δὲ τὸν θόλον, καὶ οἱ μὲν τὴν βῶλον οἱ δὲ τὸν

149 βῶλον. καὶ οὐ διὰ τοῦτο οὗτοι ἢ ἐκεῖνοι λέγονται ἀμαρτάνειν· ἕκαστος γάρ, ὡς τεθεμάτικεν, οὕτω χρῆται. καὶ οἱ αὐτοὶ δὲ διαφόρως ταῦτα ὅτε μὲν ἀρρενικῶς ἐκφέρουσιν ὅτε δὲ θηλυκῶς, λέγοντες τὸν λιμόν καὶ τὴν λιμόν. οὐκ ἄρα φύσει τῶν ὀνομάτων τὰ μὲν ἀρρενικὰ τὰ δὲ θηλυκὰ, ἀλλὰ

150 τοιαῦτα. καὶ μὴν εἴπερ φύσει τῶν ὀνομάτων τὰ μὲν ἦν ἀρρενικὰ τὰ δὲ θηλυκὰ, ὧφειλον αἱ ἀρρενικαὶ φύσεις αἰεὶ ποτε ἀρρενικοῖς ὀνόμασι προσ-
αγορευέσθαι καὶ αἱ θηλυκαὶ θηλυκοῖς καὶ μήτε αἱ ἀρρενικαὶ φύσεις μήτε αἱ θηλυκαὶ οὐδετέρως.

151 οὐχὶ δὲ τοῦτο, ἀλλὰ καὶ τὰς ἀρρενικὰς φύσεις θηλυκῶς καλοῦμεν καὶ τὰς θηλυκὰς ἀρρενικῶς καὶ τὰς οὔτε ἀρρενικὰς οὔτε θηλυκὰς ἤτοι ἀρρενικῶς ἢ θηλυκῶς, οὐχὶ δὲ οὐδετέρως. οἶον κόραξ

alike, and not some in one way and others in an opposite way.^a Fire, for instance, "naturally" warms barbarians and Greeks, unskilled and skilled, and does not warm Greeks but chill barbarians; and snow "naturally" chills, and does not chill some but heat others. Thus, that which affects us "naturally" affects in a similar way those who have their senses unimpaired. But the same nouns are not the same 148 for all, but are masculine for some, feminine for others, and for others neuter. The Athenians, for example, speak of ἡ στάμνος ("the jar") in the feminine,^b but the Peloponnesians of ὁ στάμνος in the masculine, and some of ἡ θόλος ("the rotunda"), others of ὁ θόλος, and some of ἡ βῶλος ("the lump"), others of ὁ βῶλος; and neither the 149 one set nor the other is said to be wrong because of this; for each treats the word as laid down by custom. And even the same people utter the same nouns differently, at one time as masculine, at another as feminine, saying both ὁ λιμός ("the hunger") and ἡ λιμός. So it is not "by nature" that some nouns are masculine, others feminine, but it is by conventional usage that some are of one sort and some of the other. Moreover, if some nouns had 150 been masculine and others feminine by nature, male objects ought to have been called always by masculine names and female by feminine names, and objects neither male nor female by neuters. This, however, 151 is not so, but we call male objects by feminine names, and female by masculine, and objects which are neither male nor female by names which are either masculine or feminine, and not by neuters. Thus, even in the case of the female, the masculine name is

^a Cf. P.H. iii. 179.^b Cf. § 187, *infra*.

μὲν λέγεται ἀετός κώνωψ κάνθαρος σκορπίος μῦς
 ἀρρενικῶς καὶ ἐπὶ τοῦ θήλεος, καὶ πάλιν χελιδῶν
 χελώνη κορώνη ἀκρίς μυγαλῆ ἐμπίς καὶ ἐπὶ τοῦ
 152 ἀρρενος τὴν φύσιν θηλυκῶς. ὡσαύτως δὲ κλίνη
 θηλυκῶς ἐπὶ τῆς μήτε ἀρρενος μήτε θηλείας τὴν
 φύσιν, καὶ στῦλος ἀρρενικῶς ἐπὶ τοῦ οὐδετέρου.
 τοίνυν εἰ φύσει οὐδὲν ἔστιν ἀρρενικὸν ἢ θηλυκὸν
 ὄνομα, ζητῶ πῶς ὁ γραμματικὸς ἐπιλήψεται τοῦ
 διαστρόφως λέγοντος ὁ χελιδῶν καὶ ἡ ἀετός.
 ἦτοι γὰρ ὡς φύσει τοῦ ὀνόματος τῆς χελιδόνος
 θηλυκοῦ ὄντος, ἐκείνου δὲ ἀρρενικὸν αὐτὸ τῷ
 ἄρθρῳ βιαζομένου γενέσθαι, ἢ ὡς τῆς κοινῆς
 συνηθείας θηλυκὸν αὐτὸ θεματισίας ἀλλ' οὐκ
 153 ἀρρενικόν. ἀλλ' εἰ μὲν ὡς φύσει θηλυκοῦ καθ-
 εστῶτος, ἐπεὶ οὐδὲν φύσει θηλυκὸν ἔστι καθὼς
 παρεστήσαμεν, ἀδιάφορον τὸ ὄσον ἐπὶ τούτῳ ἕαν
 τε οὕτως ἕαν τε ἐκείνως ἐκφέρηται· εἰ δ' ὡς ὑπὸ
 τῆς κοινῆς συνηθείας ἀντὶ θηλυκοῦ θεματισθέν,
 γενήσεται τοῦ τε εἰς λεγομένου καὶ μὴ κριτήριον
 οὐχὶ τεχνικός τις καὶ γραμματικὸς λόγος ἀλλ' ἢ
 ἀτεχνος καὶ ἀφελὴς τῆς συνηθείας παρατήρησις.

154 Τὰ δὲ αὐτὰ ταῦτα μετακτέον καὶ ἐπὶ τὰ ἐνικά
 καὶ πληθυντικὰ τῶν ὀνομάτων. Ἀθήναι γὰρ λέ-
 γονται πληθυντικῶς ἢ μία πόλις καὶ Πλαταιαί,
 καὶ πάλιν Θήβη ἐνικῶς καὶ Θήβαι πληθυντικῶς,
 καὶ Μυκῆνη καὶ Μυκῆναι. ρηθήσεται δὲ ἐπι-
 μελέστερον περὶ τῆς ἐν τούτοις ἀνωμαλίας προ-
 βαίνουσας τῆς ζητήσεως.

Τὰ νῦν δὲ ἐπεὶ καὶ ὑποδειγματικῶς καταπτεύ-

* Cf. §§ 195 ff.

given to κόραξ ("raven"), ἀετός ("eagle"), κώνωψ
 ("gnat"), κάνθαρος ("beetle"), σκορπίος ("scorpion"),
 μῦς ("mouse"), and conversely the feminine, even
 when they are of the male sex, to χελιδῶν ("swal-
 low"), χελώνη ("tortoise"), κορώνη ("crow"), ἀκρίς
 ("locust"), μυγαλῆ ("shrew-mouse"), ἐμπίς ("mos-
 quito"). So likewise κλίνη ("couch") is feminine, 152
 though the object itself is neither of the male nor of
 the female sex, and στῦλος ("pillar") is masculine,
 though applied to what is neuter. If, then, no noun
 is masculine or feminine by nature, I ask how the
 Grammarian will censure the man who perversely
 says ὁ χελιδῶν and ἡ ἀετός. Either (he will do so) on
 the ground that the noun χελιδῶν is feminine by
 nature, whereas the man forces it to become mascu-
 line by means of the article, or else on the ground
 that common usage has ruled it to be feminine and
 not masculine. But if he takes the ground that it is 153
 feminine by nature, then, since none is feminine by
 nature, as we have established, it is, so far as this goes,
 a matter of indifference whether it is expressed in
 this way or in that. If, on the other hand, he assumes
 that the noun is ruled to be feminine by common
 usage, the criterion of correct and incorrect speech
 will not be any technical and grammatical theory but
 untechnical and simple adherence to actual usage.

We may use the same arguments against singular 154
 and plural names. Thus Ἀθήναι in the plural is the
 name given to one city, as is Πλαταιαί, and Θήβη
 conversely in the singular as well as Θήβαι in the
 plural, and both Μυκῆνη and Μυκῆναι. But with
 these anomalies we shall deal more carefully as our
 inquiry proceeds.^a

For the present, now that by means of examples

καμεν τὴν ἐν τούτοις τῶν γραμματικῶν ἀκρίβειαν, φέρε κάκεινο, πρὶν ἐπ' ἄλλον τρόπον ἀπελθεῖν, 155 ἐξετάσωμεν, φημί δὲ τίνα λόγον καλοῦσιν ἢ μέρη λόγου. ἦτοι γὰρ αὐτὴν τὴν σωματικὴν φωνὴν ἐροῦσιν ἢ ἀσώματον λεκτόν, διαφέρον ταύτης. οὔτε δὲ τὴν φωνὴν ἐροῦσιν ταύτης μὲν γὰρ ῥηθείσης πάντες ἀκούουσιν, Ἕλληνες τε καὶ βάρβαροι, καὶ ἰδιῶται καὶ οἱ παιδείας ἐντός, τοῦ δὲ λόγου καὶ τῶν τούτου μερῶν Ἕλληνες μόνοι καὶ οἱ τούτου ἔμπειροι. τοίνυν οὐχ ἡ φωνὴ ἐστίν 156 ὁ λόγος καὶ μέρη λόγου. καὶ μὴν οὐδὲ τὸ ἀσώματον λεκτόν. πῶς γὰρ ἀσώματον ἔτι ἐστὶ τι ἄλλο τοιοῦτο παρὰ τὸ σῶμα καὶ τὸ κενόν, πολλῆς καὶ ἀνηνύτου γενομένης παρὰ τοῖς φιλοσόφοις περὶ αὐτοῦ διαμάχης; εἰ μὲν γὰρ κινεῖται, σῶμά ἐστιν· τὸ γὰρ κινούμενον σῶμα· εἰ δὲ μένει, δεχόμενον μὲν τὰ εἰς αὐτὸ φερόμενα σώματα καὶ μὴ ἀντιτυποῦν κενὸν γενήσεται, κενοῦ γὰρ ἴδιον τὸ μὴ ἀντιτυπεῖν, ἀντιτυποῦν δὲ τοῖς εἰς αὐτὸ φερομένοις σῶμά ἐστιν, ἰδίωμα γὰρ σώματος τὸ ἀντι- 157 τυπεῖν. ἄλλως τε ὁ λέγων ἀσώματόν τι λεκτόν ὑπάρχειν ἦτοι φάσει μόνον ἀκρούμενος λέγει ἢ ἀπόδειξιν παραλαμβάνων. ἀλλὰ φάσει μὲν ἀκρούμενος ἐν ἀντιφάσει ἐπισηθεῖσεται· ἀπόδειξιν δὲ παραλαμβάνων, ἐπεὶ καὶ αὐτὴ δι' ἀναμφισβητήτων ὀφείλει λημμάτων προάγειν, τὰ δὲ λήμματα ἐστὶ λεκτά, προαρπάζων τὸ ζητούμενον ὡς ὁμολογού- 158 μενον ἀπιστος ἐσται. παρ' ἣν αἰτίαν λοιπόν, εἰ μήτε ἡ φωνὴ λόγος ἐστὶ μήτε τὸ σημαινόμενον

^a Cf. § 78.

^b The only two "reals" admitted by the Epicureans.

we have gained an insight into the precision of the Grammarians in regard to these matters, come and before we turn away to another subject let us investigate this point too,—I mean what, in their view, 155 is speech or the parts of speech. Either they will say that it is the corporeal sound of the voice, or that it is the incorporeal "lekton" (or meaning)^a which differs from the sound. But they will not say that it is the sound; for when this is uttered all men hear it, Greeks and barbarians, plain people and people of culture, but speech and the parts of speech are heard (and understood) only by the Greeks and those who are skilled therein. So, then, speech and the parts of 156 speech are not the sound.—Neither indeed are they the incorporeal "lekton." For how can there still exist any other incorporeal of the sort beside body and void,^b when there has been a great and endless dispute about it amongst the philosophers? For if it moves it is a body; for what moves is corporeal; and if it is stationary, it will be void if it admits the bodies which move into it without resistance (for not to resist is the property of void), but, if it resists the bodies moving into it, it is body, for resistance is the property of body.—Moreover, he who says that an incorporeal 157 "lekton" exists, in saying so relies only on assertion or else adduces a proof.^c But if he relies on assertion he will be rebutted by a counter-assertion; and if he adduces proof, then, since the proof itself must proceed by means of unquestioned premisses, and the premisses are "lekta," by begging of the question, as though it were settled, he will be discredited. And 158 for this reason, if neither the sound of the voice is speech, nor yet the incorporeal "lekton" signified by

^c Cf. § 188.

ὑπ' αὐτῆς ἀσώματον λεκτόν, παρὰ δὲ ταῦτα νοεῖν οὐδὲν ἐνδέχεται, οὐδὲν ἐστὶ λόγος.

*Ἐστω δὲ νῦν καὶ ὁ λόγος καὶ μέρη τούτου ὅποσα θέλουσιν οἱ γραμματικοὶ ὑπάρχειν. ἀλλ' εἰπάτωσάν γε ἡμῖν πῶς τὸν λόγον μερίζουσιν.

H'.—ΠΕΡΙ ΜΕΡΙΣΜΟΥ

- 159 Ἐπεὶ γὰρ τὸν μερισμὸν τὸν τῶν μέτρων ἐν δυοὶ μάλιστα τοῖς ἀναγκαιοτάτοις κείσθαι συμβέβηκεν, ἔν τε τῷ βαίνειν, τούτεστι τῇ εἰς τοὺς πόδας διανομῇ, καὶ ἐν τῇ εἰς τὰ τοῦ λόγου μέρη διαιρέσει, ἀκόλουθον μὲν ἦν τοῖς τελέως πρὸς αὐτοὺς ἀντιλέγουσιν ἑκάτερον κινεῖν, τὸν τε τρόπον τοῦ βαίνειν, σκελίσαντας αὐτῶν ἅπαντας τοὺς οἷς βαίνουνσι πόδας ὡς ἀνυπάρκτους, καὶ ἔτι τὸν τρόπον τῆς τῶν τοῦ λόγου μερῶν διανομῆς, δείξαντας τὸ ἀδύνατον τῆς διαιρέσεως. ἀλλ' ἐπεὶ κἀν τοῖς πρὸς 160 τοὺς μουσικοὺς προηγουμένως περὶ ποδῶν ζητούμεν, ἵνα μὴ προλαμβάνωμεν τὰ μελλήσοντα πρὸς ἐκείνους λέγεσθαι ἢ μὴ δις τὰ αὐτὰ λέγωμεν, ταύτην μὲν τὴν ἀπορίαν εἰς τὸν δέοντα καιρὸν ὑπερθησόμεθα, περὶ δὲ τῆς διαιρέσεως τῶν τοῦ λόγου μερῶν σκεψόμεθα.
- 161 Ὁ οὖν μερίζων τινὰ στίχον τὰ μὲν ἀφαιρεῖ τὰ δὲ προστίθῃσι, καὶ ἀφαιρεῖ μὲν τὸ μῆνιν, εἰ τύχοι, χωρίζων τοῦ παντὸς στίχου, καὶ πάλιν τὸ ἄειδε καὶ τὰ λοιπὰ μέρη, προστίθῃσι δὲ τοῖς κατὰ συναλοιφήν ἐκφερομένοις, οἷον τῷ "αἷμ' ἐμέων" τὸ α, τὸ γὰρ πλήρες ἦν "αἷμα ἐμέων," καὶ πάλιν τῷ "βῆ δ' ἀκέων" τὸ ε, κατὰ γὰρ ἐκπλήρωσιν

the sound, and no alternative other than these can be conceived, nothing is speech.

But for the present let it be granted that both speech exists and as many parts of it as the Grammarians desire. Yet let them tell us how they divide speech into parts.

CHAPTER VIII.—CONCERNING DIVISION OF SPEECH INTO PARTS

Since it happens that the division of metres is 159 mainly into the two most necessary parts, namely, scansion,—that is, the division into feet,—and distinguishing the parts of the sentence, it follows that those who are completely refuting the Grammarians attack each of these,—both the method of scansion, by upsetting all the feet with which they scan as being non-existent, and also their method of distinguishing the parts of the sentence, by showing the impossibility of their distinctions. But seeing 160 that in our treatise *Against the Musicians* we are specially discussing "feet," in order to avoid forestalling what will then be said against them, or saying the same things twice, we shall postpone this difficulty to the proper time and consider now the question of the division of the parts of the sentence.

Now he who divides a verse subtracts some words 161 and adds others: he subtracts, let us say, *μῆνιν*, separating it from the whole verse, and likewise *ἄειδε* and the rest of the parts^a; but he adds to words uttered with elision,—*a*, for example, to *αἷμ' ἐμέων* ("vomiting blood"), for the full expression is *αἷμα ἐμέων*,^b and likewise *ε* to *βῆ δ' ἀκέων* ("he went

^a Cf. §§ 133 ff.

^b Cf. Hom. *Il.* xv. 11.

οὕτως εἶχε “βῆ δὲ ἀκέων.” μηδενὸς μέντοι μήτε ἀφαιρεῖσθαι δυναμένου ἀπὸ τινος μήτε προστίθεσθαι τινι πεφυκότος ἀδύνατος γίνεται ὁ κατὰ
 162 γραμματικὴν μερισμός. τὸ δὲ ὅτι οὐδὲν οὐδενὸς ἀφαιρεῖται μάθοιμεν ἂν τόνδε τὸν τρόπον. εἰ γὰρ ἀφαιρεῖται τι ἀπὸ τινος, ἢ ὅλον ἀφ’ ὅλου ἀφαιρεῖται ἢ μέρος ἀπὸ μέρους ἢ ὅλον ἀπὸ μέρους ἢ μέρος ἀπὸ ὅλου. ὅλον μὲν οὖν ἀπὸ ὅλου οὐκ ἀφαιρεῖται· ἐνὸς γὰρ ὑποκειμένου στίχου, εἰ ὅλον ἐστὶ τὸ ἀφαιρούμενον, ὅλον στίχον ἀφελοῦμεν. καὶ οὕτως εἰ μὲν ἔτι μένει ὁ στίχος ἀφ’ οὗ ἢ ἀφαιρέσεις, οὐδὲ ὅλως ἔσται γεγονυῖα τις ἀφαιρέσεις ἀπ’ αὐτοῦ· πῶς γὰρ ἔτι μένειν οἷον τέ ἐστὶ τὸ ὅλον, εἴπερ ἀφῆρηται; εἰ δὲ μὴ μένει, δῆλον ὡς ἐκ τοῦ μὴ ὄντος οὐκ ἐστὶ πάλιν γεγονυῖα ἀφαιρέσεις.
 163 ὥστε ὅλον ἀπὸ ὅλου οὐκ ἀφαιρεῖται. καὶ μὴν οὐδὲ ὅλον ἀπὸ μέρους· ἐν μὲν γὰρ τῷ μέρει οὐκ ἐμπεριέχεται τὸ ὅλον, οἷον τῷ μῆνιν τὸ “(μῆνιν)¹ ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος,” τὸ δὲ ἀφαιρούμενον ὀφείλει ἐμπεριέχεσθαι τῷ τὴν ἀφαίρεσιν ἐπιδεχομένῳ. λείπεται ἄρα ἢ μέρος ἀφ’ ὅλου ἢ μέρος ἀπὸ μέρους ἀφαιρεῖσθαι. ἀλλὰ καὶ τοῦτ’ ἄπορον. τὸ γὰρ μῆνιν εἰ μὲν ἀφ’ ὅλου ἀφαιρεῖται τοῦ στίχου, καὶ ἀπὸ αὐτοῦ ἀφαιρεῖται· σὺν αὐτῷ γὰρ ὅλος ὁ στίχος ἐνοεῖτο. καὶ ἄλλως, εἰ ἀφ’ ὅλου ἀφαιρεῖται, τὸ δ’ ὅλον ἦν “μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος,” ὧφειλεν ἠλαττώσασθαι καὶ τὸ “ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος” καὶ μὴ μένειν ἐν τῷ αὐτῷ, παντὸς τοῦ ἀφαιρέσιν ἐπιδεξαμένου
 164 μὴ μένοντος ἐν ταύτῳ. ἐχρῆν δὲ καὶ αὐτὸ τὸ

¹ (μῆνιν) add. Heintz.

^a Cf. Hom. *Il.* i. 34.

in silence”), for when fully expressed it is βῆ δὲ ἀκέων.^a Since, however, nothing can really be subtracted from anything or added to anything,^b grammatical division becomes impossible. And we may 162 learn the fact that nothing is subtracted from anything in this way: if anything is subtracted from anything, either a whole is subtracted from a whole, or a part from a part, or a whole from a part, or a part from a whole. But a whole is not subtracted from a whole; for when a single verse is set down, if it is the whole that is subtracted we shall be subtracting the whole verse. And thus, if the verse from which the subtraction is made still remains, no subtraction at all will have been made from it; for how is it possible for the whole still to remain when it has been subtracted? And if it does not remain, clearly no subtraction has taken place from what does not exist. Consequently a whole is not subtracted from a whole. 163 Nor, again, is a whole subtracted from a part. For the whole is not included in the part,—μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος, for instance, in μῆνιν,—but what is subtracted ought to be included in that which suffers the subtraction. It remains, then, to say that either a part is subtracted from a whole or a part from a part. But this too is questionable. For if μῆνιν is subtracted from the whole verse, it is also subtracted from itself; for the whole verse was conceived as including it. Besides, if it is taken from the whole, and the whole was μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος, then ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος ought also to have been diminished and not to have remained unaltered, since nothing which suffers subtraction remains unaltered. And μῆνιν itself, too, when being sub- 164

^b Cf. P.H. iii. 85, *Adv. Phys.* i. 280 ff., 308 ff.

μῆνιν, ἀφ' ὅλου ἐκείνου λαμβάνον τὴν ἀφαίρεσιν, ἔχειν τι ἐξ ἐκάστου τῶν ἐν ἐκείνῳ, ὃ πάλιν ἐστὶ ψεῦδος. εἰ οὖν μῆτε ὅλον στίχον ἀπὸ στίχου δυνατὸν μερίζειν μῆτε μέρος στίχου ἀπὸ μέρους μῆτε ὅλον ἀπὸ μέρους μῆτε μέρος ἀφ' ὅλου, καὶ παρὰ ταῦτα οὐδὲν ἐνδέχεται ποιεῖν, ἀδύνατος τῷ γραμματικῷ ὁ μερισμός.

- 165 Οὐ μὴν ἀλλὰ καὶ ἡ κατὰ τὰς συναλειπτικῶς ἐκφερομένης λέξεις τινῶν πρόσθεσις οὐκ ἔσται. καὶ τοῦτ' ἔσται σαφές, ἂν μὴ ἐπὶ συλλαβῶν ἢ στοιχείων χειρίζηται ὁ λόγος, ὧν μάλιστα τὰς προσθέσεις ἐν τοῖς μερισμοῖς ποιοῦνται οἱ γραμματικοί, ἀλλ' ἐπὶ ὅλων λέξεων. ὑποκειμένου τοίνυν ἡμιστιχίου τοῦ "ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος" (ἔστω γὰρ πρὸς τὸ παρὸν τουτί ἡμιστιχίον, καὶ προσλαμβάνετω τὸ μῆνιν, ὥστε τὸ ἐξ ἄμφοτέρων ἡρωικὸν γενέσθαι μέτρον) ζητοῦμεν
 166 τίς ἢ πρόσθεσις γίνεται; ἤτοι γὰρ ἑαυτῷ τὸ μῆνιν προστίθεται ἢ τῷ προϋποκειμένῳ ἡμιστιχίῳ ἢ τῷ ἐξ ἄμφοτέρων ἀποτελεσθέντι ἡρωικῷ μέτρῳ. καὶ ἑαυτῷ μὲν οὐκ ἂν προστεθείη· μὴ ὄν γὰρ ἕτερον ἑαυτοῦ καὶ μὴ διπλασιάζον ἑαυτὸ οὐκ ἂν λέγοιτο ἑαυτῷ προστίθεσθαι. τῷ δὲ προϋποκειμένῳ ἡμιστιχίῳ πῶς ἐνδέχεται; ὅλω μὲν γὰρ αὐτῷ προστιθέμενον καὶ αὐτὸ παρισταζόμενον ἐκείνῳ
 167 ἡμιστιχίον γενήσεται, αὐτῆ τε ἀκολουθήσει καὶ τὸ μέγα ἡμιστιχίον λέγειν εἶναι βραχύ, βραχεῖ συνεξισούμενον τῷ μῆνιν, καὶ τὸ βραχὺ μέγα, μείζονι αντιπαρῆκον τῷ ἡμιστιχίῳ, εἶπερ τῷ παντὶ ἡμιστιχίῳ προστίθεται τὸ μῆνιν, ὅλον τῷ ἄειδε (καὶ τὰ λοιπά).¹ καὶ εἰ μὲν μόνον αὐξήσει τὸ ἄειδε, τὸ ὅλον οὐ ποιήσει στίχον. λείπεται οὖν φάσκεν

tracted from that whole verse ought to have extracted something from each of the parts of that whole; and that again is false. If, then, it is not possible to divide the whole verse from the whole or a part of the verse from a part or the whole from a part or a part from the whole, and no other operation besides these is feasible, division is impossible for the Grammarian.

Moreover, even in phrases which contain elisions 165 there will be no addition of any letters. And this will be clear if language be treated not as a matter of syllables or elements,—and it is mainly these which the Grammarians use as additions in their divisions,—but as a matter of whole phrases. So if the half-verse ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος is set down (for let it be granted for the present that this is a half-verse, and let it have μῆνιν added to it so that the combination forms a hexameter), to what, we ask, is the addition made? For μῆνιν is added either to itself or to the 166 half-verse already set down or to the hexameter made up of the two together. But it will not be added to itself; for as it is not other than itself and does not double itself it will not be said to be added to itself. And how can it be added to the half-verse already set down? For as it is added to the whole of it, it too being made equal to the half-verse will become a half-verse, and thus it will follow that we must say that the 167 large half-verse is short, being made equal to the short one, μῆνιν, and the short one large, as being equal in extent to the larger half-verse, if in fact μῆνιν is added to the whole half-verse, such as ἄειδε etc. But if it shall increase ἄειδε only, the whole will not make a verse. It remains then to assert that

¹ (καὶ τὰ λοιπά) addidi.

τῷ ἐξ ἁμφοῖν, αὐτοῦ τε τοῦ μῆνιν καὶ τοῦ προ-
 ὑποκειμένου ἡμισιχίου, ἀποτελουμένῳ ἑξαμέτρῳ
 καὶ ἡρωικῷ στίχῳ προστίθεται. ὁ τελέως ἦν
 168 ἀπίθανον· τὸ γὰρ ἐπιδεχόμενον πρόσθεσιν προ-
 ὑπόκειται τῆς προσθέσεως, οὐ μὴν τὸ γινόμενον
 ἐκ τῆς προσθέσεως προὑπόκειται ταύτης. οὐκ
 ἄρα οὖν τῷ γινομένῳ ἐκ τῆς προσθέσεως τοῦ
 μῆνιν ἑξαμέτρῳ στίχῳ προστίθεται τὸ μῆνιν· ὅτε
 μὲν γὰρ γίνεται ἡ πρόσθεσις, οὐπω ἑξαμέτρος
 ἔστιν, ὅτε δὲ ἔστιν ἑξαμέτρος, οὐκέτι γίνεται ἡ
 πρόσθεσις. πλὴν συνήκται τὸ προκείμενον, καὶ
 μήτε προσθέσεως μήτε ἀφαιρέσεως οὐσης ἀναιρεῖται
 ὁ προειρημένος τοῦ μερισμοῦ τρόπος.
 Ἄλλὰ δὴ πάλιν τὴν ἐν τούτοις τῶν γραμματικῶν
 ἀκρίβειαν κατανοήσαντες, φέρε καὶ τῆς ἐν τῷ
 γράφειν αὐτῶν δυνάμει ἀποπειραθῶμεν.

Θ'.—ΠΕΡΙ ΟΡΘΟΓΡΑΦΙΑΣ

169 Τὴν γὰρ ὀρθογραφίαν φασὶν ἐν τρισὶ κείσθαι
 τρόποις, ποσότητι ποιότητι μερισμῷ. ποσότητι
 μὲν οὖν, ὅταν ζητῶμεν εἰ ταῖς δοτικαῖς προσθετέον
 τὸ ι, καὶ εὐχάλινον καὶ εὐώδιναις τῷ ι μόνον
 γραπτέον ἢ τῇ εἰ· ποιότητι δέ, ὅταν σκεπτώμεθα
 πότερον διὰ τοῦ ζ γραπτέον ἔστι τὸ σμιλίον καὶ
 τὴν Σμύρναν ἢ διὰ τοῦ σ· μερισμῷ δέ, ἐπειδὴν
 διαπορώμεν περὶ τῆς ὄβριμος λέξεως, πότερόν
 ποτε τὸ β τῆς δευτέρας ἔστι συλλαβῆς ἀρχὴ ἢ
 τῆς προηγούμενης πέρασ, καὶ ἐπὶ τοῦ Ἀριστίων
 170 ὀνόματος ποῦ τακτέον τὸ σ. πάλιν δ' ἡ τοιαύτη
 τεχνολογία, ἵνα μηδὲν τῶν ἀπορωτέρων κινῶμεν,
 μάταιος εἶναι φαίνεται, πρῶτον μὲν ἐκ τῆς δια-
 100

μῆνιν is added to the combination of the two,—of
 μῆνιν itself and the previously stated half-verse,—
 which is the complete hexameter and heroic verse. 168
 But this is wholly incredible; for that which receives
 addition subsists before the addition, but that which
 results from the addition certainly does not subsist
 before it. Therefore μῆνιν is not added to that which
 results from the addition of μῆνιν to the hexameter
 verse; for when the addition is being made, it is not
 as yet a hexameter, and when it is a hexameter the
 addition is no longer being made. Howbeit the task
 we proposed is now concluded, and, as neither addition
 exists nor subtraction, the method of division
 stated above is destroyed.

But now that we have again had an insight into the
 precision of the Grammarians in these matters, come
 and let us make trial of their power in the matter of
 writing.

CHAPTER IX.—CONCERNING ORTHOGRAPHY

Orthography, they say, is to be found in three 169
 modes,—quantity, quality, division. In quantity
 when we inquire if ι should be added to datives and
 whether εὐχάλινον and εὐώδιναις should be written
 with an ι only or with εἰ. And in quality when we
 consider whether σμιλίον and Σμύρναν are to be
 written with a ζ or with a σ. And in division when
 we question regarding the word ὄβριμος whether the
 β is the beginning of the second syllable or the end
 of the first, and in the case of the name Ἀριστίων
 where we should place the σ. But here again, not to 170
 raise any worse objections, technology of this sort
 appears to be useless, firstly because of the disagree-

φωνίας, ἔπειτα δὲ καὶ ἐξ αὐτῶν τῶν ἀποτελεσμάτων. καὶ ἐκ μὲν τῆς διαφωνίας, ἐπεὶ περὶ οἱ τεχνικοὶ μάχονται τε καὶ εἰς αἰῶνα μαχέσονται πρὸς ἀλλήλους, τῶν μὲν οὕτως τῶν δὲ ἐκείνως
 171 τὸ αὐτὸ γράφειν ἀξιούντων. ὅθεν καὶ οὕτως αὐτοὺς ἐρωτητέον. εἰ χρειώδης ἐστὶν ἢ περὶ ὀρθογραφίας τεχνολογία τῷ βίῳ, ἐχρῆν ἡμᾶς τε καὶ ἕκαστον τῶν διαφωνούντων περὶ αὐτῆς γραμματικῶν, ἀνεπικρίτου ἀκμῆν καθεστῶσης τῆς κατὰ ταύτην διαφωνίας, παραποδίζεσθαι εἰς ἃ ἂν δέη
 172 γράφειν. οὔτε δὲ ἡμῶν οὔτε τούτων ἕκαστος παραποδίζεται, ἀλλὰ συμφώνως πάντες τυγχάνουσι τῆς προθέσεως, ἅτε δὴ μὴ ἀπ' ἐκείνης ἀλλ' ἀπὸ κοινοτέρας τινὸς καὶ συμφώνου ὀρμώμενοι τριβῆς, καθ' ἣν τὰ μὲν κατ' ἀνάγκην ὀφείλοντα παραλαμβάνεσθαι στοιχεῖα πρὸς τὴν μήνυσιν τοῦ ὀνόματος πάντες παραλαμβάνουσι, καὶ οἱ γραμματικοὶ καὶ οἱ μὴ γραμματικοί, περὶ δὲ τῶν μὴ κατ' ἀνάγκην ἀδιαφοροῦσιν. οὐκ ἄρα χρειώδης ἐστὶν ἢ περὶ ὀρθογραφίας παρὰ τοῖς γραμματικοῖς ὑφήγησις.
 173 Ἄλλ' ὁ μὲν ἀπὸ τῆς διαφωνίας ἔλεγχος τοιούτους, ὁ δὲ ἀπὸ τῶν ἀποτελεσμάτων ἐμφανής. οὐδὲν γὰρ βλαπτόμεθα, εἴαν τε σὺν τῷ ι γράφωμεν τὴν δοτικὴν πτώσιν εἴαν τε μὴ, καὶ εἴαν τε διὰ τοῦ σ τὸ σμιλίον καὶ τὴν Σμύρναν εἴαν τε διὰ τοῦ ζ, καὶ ἐπὶ τοῦ Ἀριστίων ὀνόματος εἴαν τε τῇ προηγουμένῃ συλλαβῇ τὸ σ προσμερίζωμεν εἴαν τε τῇ ἐπιφερομένη
 174 μένῃ τοῦτο συντάττωμεν. εἰ μὲν γὰρ παρὰ τὸ διὰ τοῦ σ ἀλλὰ μὴ διὰ τοῦ ζ γράφειν τὸ σμιλίον οὐκέτι σμιλίον γίνεται ἀλλὰ δρέπανον, καὶ εἰ παρὰ τὸ τοῦ Ἀριστίων ὀνόματος οὕτως ἀλλὰ μὴ ἐκείνως συντάσσεσθαι τὸ σ ὁ Ἀριστίων, καθὼς φησὶ τις τῶν
 102

ments about it, and next because of its actual results themselves. Because of the disagreements, inasmuch as the technicians fight and will fight to eternity with one another, some insisting on writing the same word in this way and some in that. Hence 171 we must question them in this wise: If the technology which deals with orthography is profitable for life, both we and each of the Grammarians who dispute about it ought to have been in a tangle as to what we ought to write, seeing that the dispute about it is still unsettled. But neither any of us nor 172 any of them is in a tangle, but we all achieve our purpose without dispute, inasmuch as we set out not from this technology but from more general and undisputed practice, in accordance with which we all—Grammarians and non-Grammarians alike—adopt the elements which necessarily must be adopted for the indication of the noun, while as to such as are not necessary we are indifferent. Therefore the instruction given by the Grammarians regarding orthography is not profitable.

Such, then, is the refutation based on their disagree- 173 ment, and that based on the actual results is obvious. For we are in no wise injured whether we write the dative case with an ι or without one, and whether we write σμιλίον and Σμύρναν with a σ or with a ζ, and whether, in the case of the name Ἀριστίων, we attach the σ to the preceding syllable or assign it to that which follows. For if σμιλίον, because it is written 174 with a σ and not with a ζ, no longer is σμιλίον ("a scalpel") but δρέπανον ("a sickle"), and if, because the σ in the name Ἀριστίων is assigned to this syllable rather than to that, Ἀριστίων ("the breakfast")—as one of the witty fellows says—becomes Δειπνίων

χαριεντιζομένων, Δειπνίων γίνεται, ἤρμοξε μὴ ἀδιαφορεῖν. εἰ δ' ὅπως ἂν ἔχη τὰ τῆς γραφῆς, τὸ σμιλίον (ἔστι σμιλίον),¹ εἴαν τε διὰ τοῦ σ εἴαν τε διὰ τοῦ ζ κατάρχηται, ὃ τε Ἀριστίων ἀεί ποτέ ἐστὶν Ἀριστίων, εἴαν τε τῷ ι εἴαν τε τῷ τ τὸ σ προσμερίζωμεν, τίς χρεία τῆς πολλῆς καὶ ματαίας παρὰ τοῖς γραμματικοῖς περὶ τούτων μωρολογίας;

175 Κεφαλαιωδέστερον δὴ καὶ περὶ ὀρθογραφίας διεξιόντες, ἴδωμεν εἰς συμπλήρωσιν τῆς πρὸς τὸ τεχνικὸν μέρος αὐτῶν ἀντιρρήσεως πότερον ἔχουσι τινα πρὸς τὸ ἐλληνίζειν συνεστῶσαν μέθοδον ἢ οὐδαμῶς.

I.—ΠΕΡΙ ΕΛΛΗΝΙΣΜΟΝ

176 Ὅτι μὲν δεῖ τινα φειδῶ ποιεῖσθαι τῆς περὶ τὰς διαλέκτους καθαριότητος, αὐτόθεν συμφανές· ὃ τε γὰρ ἐκάστοτε βαρβαρίζων καὶ σολοικίζων ὡς ἀπαιδευτος χλευάζεται, ὃ τε ἐλληνίζων ἱκανός ἐστι πρὸς τὸ σαφῶς ἅμα καὶ ἀκριβῶς παραστήσασθαι τὰ νοηθέντα τῶν πραγμάτων. ἤδη δὲ τοῦ ἐλληνισμοῦ δύο εἰσὶ διαφοραί· ὃς μὲν γὰρ ἐστὶ κεχωρισμένος τῆς κοινῆς ἡμῶν συνηθείας καὶ κατὰ γραμματικὴν ἀναλογίαν δοκεῖ προκόπτειν, ὃς δὲ κατὰ τὴν ἐκάστου τῶν Ἑλλήνων συνηθειαν ἐκ παραπλασμοῦ καὶ τῆς ἐν ταῖς ὁμιλίαις παρατηρή-
177 σεως ἀναγόμενος. οἷον ὁ μὲν τῆς Ζεὺς ὀρθῆς πτώσεως τὰς πλαγίους σχηματίζων τοῦ Ζεὸς τῷ Ζεῖ τὸν Ζέα κατὰ τὸν πρότερον τοῦ ἐλληνισμοῦ χαρακτήρα διαλέλεκται, ὁ δὲ ἀφελῶς τοῦ Ζηνός λέγων καὶ τῷ Ζηνί καὶ τὸν Ζῆνα κατὰ τὸν δευτέρον καὶ συνηθέστερον ἡμῖν. πλὴν δυοῖν ὄντων τῶν ἐλληνισμῶν εὐχρηστον μὲν εἶναι φαμεν τὸν

(“the diner”), then it would be fitting not to be indifferent. But if, whatever be the form of writing, σμιλίον is σμιλίον, whether it begins with a σ or with a ζ, and Ἀριστίων is always Ἀριστίων, whether we attach the σ to the ι or to the τ, what is the use of the long, vain and stupid disputation about these points which is carried on by the Grammarians?

And now that we are discussing orthography in 175 rather a summary fashion, in order to complete our confutation of their technical section let us consider whether or not they have any systematic method of dealing with “hellenism” (or “Greek idiom”).

CHAPTER X.—CONCERNING GREEK IDIOM

That one must preserve with some care purity of 176 speech is at once plain; for the man who is constantly using barbarisms and solecisms is jeered at as one of no culture, whereas he who speaks good Greek is capable of presenting his ideas both clearly and exactly. But now there are two distinct kinds of “hellenism”: one stands apart from our common usage and seems to proceed in accordance with grammatical analogy; the other conforms to the common usage of each of the Greeks and is derived from framing words and from observation in ordinary converse. For 177 example, the man who forms from the nominative Ζεὺς the oblique cases Ζεός, Ζεῖ, Ζέα, frames the declension in accordance with the first kind of “hellenism,” but he who simply says Ζηνός, Ζηνί, Ζῆνα frames it in accordance with the second, the one more usual with us. Only, as two forms of “hellenism” exist, we declare, for the reasons already stated, that the

¹ (ἔστι σμιλίον) addidi (σμιλίον post γραφῆς add. c. j. Bekk.).

δεύτερον διὰ τὰς προειρημένας αἰτίας, ἄχρηστον
 178 δὲ τὸν πρῶτον διὰ τὰς λεχθησομένας. ὥσπερ γὰρ
 ἐν πόλει νομίσματος τινος προχωροῦντος κατὰ τὸ
 ἐγχώριον ὁ μὲν τούτῳ στοιχῶν δύναται καὶ τὰς
 ἐν ἐκείνῃ τῇ πόλει διεξαγωγὰς ἀπαραποδίστως
 ποιεῖσθαι, ὁ δὲ τοῦτο μὲν μὴ παραδεχόμενος ἄλλο
 δέ τι καινὸν χαράσσειν ἑαυτῷ καὶ τούτῳ νομι-
 στεύεσθαι θέλων μάταιος καθέστηκεν, οὕτω καὶ
 τῷ βίῳ ὁ μὴ βουλόμενος τῇ συνήθως παραδεχθείσῃ,
 καθάπερ νομίσματι, ὀμιλία κατακολουθεῖν ἀλλ'
 179 ἰδίαν αὐτῷ τέμνειν μακρὰ ἐγγὺς ἐστίν. διόπερ εἰ
 οἱ γραμματικοὶ ὑπισχυοῦνται τέχνην τιὰ τὴν καλου-
 μένην ἀναλογίαν παραδώσειν, δι' ἧς κατ' ἐκείνον
 ἡμᾶς τὸν ἑλληνισμὸν ἀναγκάζουσι διαλέγεσθαι,
 ὑποδεικτέον ὅτι ἀσύστατός ἐστιν αὕτη ἡ τέχνη, δεῖ
 δὲ τοὺς ὀρθῶς βουλομένους διαλέγεσθαι τῇ ἀτέχνῳ
 καὶ ἀφελεί κατὰ τὸν βίον καὶ τῇ κατὰ τὴν κοινὴν
 τῶν πολλῶν συνήθειαν παρατηρήσει προσανέχειν.
 180 Εἴπερ οὖν ἔστι τις περὶ ἑλληνισμὸν τέχνη, ἥτοι
 ἔχει ἀρχὰς ἐφ' αἷς συνέστηκεν ἢ οὐκ ἔχει. καὶ
 μὴ ἔχειν μὲν οὐκ ἂν φαίεν οἱ γραμματικοί· πᾶσα
 γὰρ τέχνη ἀπὸ τινος ἀρχῆς ὀφείλει συνίστασθαι.
 εἰ δὲ ἔχει, ἥτοι τεχνικὰς ταύτας ἔχει ἢ ἀτέχνους.
 καὶ εἰ μὲν τεχνικὰς, πάντως ἢ ἀφ' ἑαυτῶν ἢ
 ἀπ' ἄλλης τέχνης συνέστηκεν, κάκειν πάλιν ἀπὸ
 τρίτης, καὶ ἢ τρίτη ἀπὸ τετάρτης, καὶ τοῦτ' εἰς
 ἀπειρον, ὥστε ἀναρχὸν γιγνομένην τὴν περὶ ἑλλη-
 181 νισμὸν τέχνην μηδὲ τέχνην ὑπάρχειν· εἰ δὲ ἀτέχνους,
 οὐκ ἄλλαι τινὲς εὐρεθήσονται παρὰ τὴν συνήθειαν.
 ἢ ἄρα συνήθεια τοῦ τί τέ ἐστιν ἑλληνικὸν καὶ τί
 ἀνελληνιστὸν γίνεται κριτήριον, καὶ οὐκ ἄλλη τις
 182 περὶ τὸν ἑλληνισμὸν τέχνη. ἄλλως τε, ἐπεὶ τῶν

second is of great use, but the first useless, for reasons
 now to be stated. For just as in a city where a certain 178
 local coinage is current, he who makes use of this is
 able to carry on his business in that city without
 hindrances, but he who does not adopt it, but coins
 for himself some new money and desires to have this
 passed, is a fool, so also in ordinary intercourse the
 man who refuses to follow the mode of converse—
 like the coinage—which is usually adopted, and cuts
 out a new way of his own, is near to madness. Where- 179
 fore, if the Grammarians promise to present us with
 an art described as “ analogy,” by which they compel
 us to discourse in accordance with that kind of
 “ hellenism,” one must point out that this art has no
 foundation, and that those who wish to discourse
 correctly must cleave to the non-technical, simple and
 ordinary style and to the observing of the rules which
 accord with the usage of the majority.

If there does exist any art concerned with “ hellen- 180
 ism,” it either has or has not principles upon which it
 is based. That it has none the Grammarians would
 deny, for every art must be based on some principle.
 But if it has some, the principles it has are either
 technical or non-technical. If they are technical,
 they certainly are constructed either from themselves
 or from another art, and that again from a third, and
 the third from a fourth, and so on to infinity, so that
 the art dealing with “ hellenism ” is found to have
 no beginning (or principle) and thus to be no art. And 181
 if its principles are untechnical, none will be found
 other than common usage. Thus common usage
 becomes the criterion of what is “ hellenic ” and what
 is not “ hellenic,” and not some other art concerning
 “ hellenism.”—Again, since some arts—such as 182

- τεχνῶν αἱ μὲν τῷ ὄντι εἰσὶ τέχναι, ὡς ἡ ἀνδριαντο-
 ποιικὴ καὶ ζωγραφία, αἱ δὲ ἐπαγγέλματι μὲν εἰσὶ
 τέχναι, οὐ πάντως δὲ καὶ κατ' ἀλήθειαν, ὡς
 Χαλδαϊκὴ τε καὶ θυτική, ἵνα μάθωμεν πότερον
 ποτε καὶ ἡ περὶ τὸν ἑλληνισμόν λεγομένη τέχνη
 ὑπόσχεσις μόνον ἐστὶν ἢ καὶ ὑποκειμένη δύναμις,
 δεήσει κριτήριόν τι ἡμᾶς ἔχειν εἰς τὴν ταύτης
 183 δοκιμασίαν. τοῦτ' οὖν τὸ κριτήριον πάλιν ἦτοι
 τεχνικόν τί ἐστι καὶ περὶ ἑλληνισμόν, εἶγε καὶ τῆς
 περὶ τὸν ἑλληνισμόν κρινούσης, εἰ ὕγιως κρίνει,
 δοκιμαστικὸν καθέστηκεν, ἢ ἀτεχνον. ἀλλὰ τε-
 χνικὸν μὲν περὶ ἑλληνισμόν οὐκ ἂν εἶη διὰ τὴν
 προειρημένην εἰς ἄπειρον ἔκπτωσιν· ἀτεχνον δ'
 εἰ λαμβάνοιτο τὸ κριτήριον, οὐκ ἄλλο τι εὐρήσομεν
 ἢ τὴν συνήθειαν. ἡ ἄρα συνήθεια καὶ αὐτὴν τὴν
 περὶ ἑλληνισμόν τέχνην κρίνουσα οὐ δεήσεται
 τέχνης.
- 184 Εἵπερ δὲ οὐκ ἄλλως ἐστὶν ἑλληνίζειν ἢ μὴ
 παρὰ γραμματικῆς μάθωμεν τὸ ἑλληνικόν, ἦτοι
 ἐναργές ἐστι τοῦτο καὶ ἐξ αὐτοῦ βλεπόμενον ἢ
 ἀδηλότερον. ἀλλ' ἐναργές μὲν οὐκ ἐστὶν, ἐπεὶ
 σύμφωνον ἂν ἦν παρὰ πᾶσιν ὡς τὰ λοιπὰ τῶν
 185 ἐναργῶν. καὶ ἄλλως πρὸς μὲν τὴν τοῦ ἐναργοῦς
 ἀντίληψιν οὐδεμιᾶς τέχνης ἐστὶ χρεία, καθάπερ
 οὐδὲ πρὸς τὸ λευκὸν ὄραν ἢ γλυκέος γεύεσθαι ἢ
 θερμοῦ θιγγάνειν· πρὸς δὲ τὸ ἑλληνίζειν μεθόδου
 τινὸς καὶ τέχνης κατὰ τοὺς γραμματικούς ἐστὶ
 χρεία. οὐκ ἄρα ἐναργές ἐστὶ τὸ ἑλληνίζειν.
- 186 ἀδηλον δὲ εἶπερ ἐστὶ, πάλιν ἐπεὶ τὸ ἀδηλον ἐκ
 τινος ἑτέρου γνωρίζεται, ἦτοι φυσικῶ τινὶ κατ-
 ακολουθητέον κριτηρίῳ, ἐξ οὗ διαγιγνώσκεται τί
 τὸ ἑλληνικόν καὶ τί τὸ ἀνελλήνιστον, ἢ τῇ ἐνὸς

statuary and painting—are really arts, but others
 which are claimed as arts—such as astrology and the
 art of the haruspex—are not wholly and truly arts,
 in order that we may learn whether the so-called art
 of “hellenism” is merely a profession or a sub-
 stantial power, it will be necessary for us to possess
 some criterion by which to test it. Then this criterion, 183
 too, is either a technical one and deals with “hellen-
 ism”—since it is to test whether the art which judges
 “hellenism” judges soundly—or it is non-technical.
 But it will not be a technical one concerning “hellen-
 ism” because of the regress *ad infinitum* already
 stated^a; and if the criterion is to be taken as non-
 technical, we shall find no other criterion than
 common usage. Common usage, then, as judging the
 art of “hellenism” itself, will not need art.

But if it is not possible to speak good Greek other- 184
 wise than by learning good Greek from the Art of
 Grammar, either it is something evident and seen of
 itself or it is obscure. But it is not evident, since then
 it would have been agreed upon by all men, like all
 other evident things. And besides, there is need of 185
 no art for the perception of what is evident, any more
 than for seeing the white object, tasting the sweet,
 or feeling the hot; but for speaking good Greek there
 is need, according to the Grammarians, of a certain
 method and art. Therefore, speaking good Greek
 is not evident.—But if it is obscure, then again, since 186
 what is obscure is revealed by something else, we
 must either be guided by some natural criterion by
 means of which it is determined what is good Greek
 and what is not, or we must employ, in order to grasp

^a Cf. § 180.

187 *συνηθεία ὡς ἄκρως ἐλληνίζοντος χρηστέον πρὸς τὴν τούτου κατάληψιν, ἢ τῇ πάντων. ἀλλὰ φυσικὸν μὲν κριτήριον εἰς τὸ ἐλληνικὸν καὶ τὸ μὴ τοιοῦτον οὐδὲν ἔχομεν· τοῦ γὰρ Ἀττικοῦ τὸ τάριχος λέγοντος ὡς ἐλληνικὸν καὶ τοῦ Πελοποννησίου ὁ τάριχος προφερομένου ὡς ἀδιάστροφον, καὶ τοῦ μὲν τὴν στάμνον ὀνομάζοντος τοῦ δὲ τὸν στάμνον, οὐδὲν ἔχει ἐξ ἑαυτοῦ κριτήριον πιστὸν ὁ γραμματικὸς εἰς τὸ οὕτως ἀλλὰ μὴ οὕτως δεῖν λέγειν, εἰ μὴ ἄρα τὴν ἐκάστου συνήθειαν, ἣτις
 188 οὔτε τεχνικὴ οὔτε φυσικὴ ἐστίν. τῇ δὲ τινὸς συνηθεία δεῖν ἀκολουθεῖν εἴπερ ἐροῦσιν, ἦτοι φάσει μόνον ἐροῦσιν ἢ ἐμμεθόδοις ἀποδείξεισι χρυσάμενοι. ἀλλὰ φάσιν μὲν λέγουσι φάσιν ἀντιθίσσομεν περὶ τοῦ τοῖς πολλοῖς μᾶλλον ἢ τῷ ἐνὶ δεῖν ἀκολουθεῖν· ἐμμεθόδως δὲ ἀποδεικνύντες ὅτι οὗτος ἐλληνίζει, ἀναγκασθήσονται ἐκείνην τὴν μέθοδον κριτήριον ἐλληνισμοῦ λέγειν δι' ἣν καὶ οὗτος ἐλληνίζων δέδεικται, ἀλλ' οὐχὶ τοῦτον.
 189 λείπεται οὖν τῇ πάντων συνηθεία προσέχειν. εἰ δὲ τοῦτο, οὐ χρεια τῆς ἀναλογίας ἀλλὰ παρατηρήσεως τοῦ πῶς οἱ πολλοὶ διαλέγονται καὶ τί ὡς ἐλληνικὸν παραδέχονται ἢ ὡς οὐ τοιοῦτον ἐκκλίνουσιν. τό γε μὴν ἐλληνικὸν ἦτοι φύσει ἐστὶν ἢ θέσει. καὶ φύσει μὲν οὐκ ἐστίν, ἐπεὶ οὐκ ἂν ποτε ταῦτόν τοῖς μὲν ἐλληνικὸν ἐδόκει τυγχάνειν τοῖς
 190 δὲ οὐχ ἐλληνικόν· θέσει δὲ εἴπερ ἔστι καὶ νόμῳ τῶν ἀνθρώπων, ὁ συνασκηθεὶς μάλιστα καὶ τριβεὶς ἐν τῇ συνηθεία, οὗτος ἐλληνίζει, καὶ οὐχ ὁ τὴν ἀναλογίαν ἐπιστάμενος. καὶ γὰρ ἄλλως ἔνεστι*

it, either the habit of speech of one man, as being pre-eminent in "hellenism," or that of all men. But 187 we possess no natural criterion regarding what is good Greek and what is not; for when the man of Attica uses τὸ τάριχος ("the dried fish") as being good Greek,^a while the Peloponnesian enunciates ὁ τάριχος as being correct, and the one speaks of ἡ στάμνος ("the jar"), the other of ὁ στάμνος, the Grammarian possesses no criterion which is of itself reliable for deciding that one ought to speak in this way rather than in that way, unless indeed it be each man's practice, and this is neither technical nor natural. And if 188 they shall declare that we must follow the customary practice of a certain person, they will declare this either by mere assertion or by employing methodical proofs. But to their assertion we shall reply by the counter-assertion that one ought to follow the many rather than the one; and if they try to prove methodically that this man speaks good Greek, they will be forced to say that that method by which this man has been proved to speak good Greek is the criterion, and not this man himself. It remains, then, to hold fast 189 by the common usage of all men. And if so, there is no need of analogy but of observing how most men converse and what they adopt as good Greek or avoid as not good.—However, good Greek exists either by nature or by convention. But it does not exist by nature,^b since then the same phrase would never have seemed good Greek to some and not good Greek to others; and if it exists by convention and human 190 enactment, the man who speaks good Greek is he who is most practised and versed in common usage, and not he who understands analogy.—By another

^a Cf. § 148.^b Cf. § 145.

παραστήσαι ὅτι οὐ δεόμεθα πρὸς τὸ ἐλληνίζειν
 191 τῆς γραμματικῆς. ἐν γὰρ ταῖς ἀνὰ χεῖρα ὀμιλίαις
 ἤτοι ἀντικόψουσιν ἡμῖν οἱ πολλοὶ ἐπὶ τισὶ λέξεσιν
 ἢ οὐκ ἀντικόψουσιν. καὶ εἰ μὲν ἀντικόψουσιν,
 εὐθὺς καὶ διορθώσονται ἡμᾶς, ὥστε παρὰ τῶν ἐκ
 τοῦ βίου καθεστῶτων ἀλλ' οὐχὶ παρὰ γραμματικῶν
 192 ἔχειν τὸ ἐλληνίζειν. εἰ δ' οὐ δυσχεραίνουσιν ἀλλ'
 ὡς σαφέσι καὶ ὀρθῶς ἔχουσι συμπεριφέροντο τοῖς
 λεγομένοις, καὶ ἡμεῖς αὐτοῖς ἐπιμενοῦμεν. κατὰ
 τε ταύτην τὴν ἀναλογίαν ἤτοι πάντες ἢ οἱ πλείστοι
 ἢ οἱ πολλοὶ διαλέγονται· οὔτε δὲ πάντες οὔθ' οἱ
 πλείστοι οὔθ' οἱ πολλοί· μόλις γὰρ δύο ἢ τρεῖς
 τοιοῦτοι εὐρίσκονται, οἱ δὲ πλείστοι οὐδὲ ἴσασι
 193 αὐτήν. τοῖωνν ἐπεὶ τῇ τῶν πολλῶν συνηθείᾳ καὶ
 οὐ τῇ τῶν δυοῖν ἀναγκαῖον κατακολουθεῖν, ῥητέον
 τὴν παρατήρησιν τῆς κοινῆς συνηθείας χρησι-
 μεύειν πρὸς τὸ ἐλληνίζειν, ἀλλὰ μὴ τὴν ἀναλογίαν.
 ἐπὶ πάντων γε μὴν σχεδὸν τῶν χρησιμευόντων τῷ
 βίῳ μέτρον ἐστὶν ἰκανὸν τὸ μὴ παραποδίζεσθαι
 194 πρὸς τὰς χρεῖας. διόπερ εἰ καὶ ὁ ἑλληνισμὸς διὰ
 δύο μάλιστα προηγούμενα ἔτυχεν ἀποδοχῆς, τὴν
 τε σαφήνειαν καὶ τὴν προσήνειαν τῶν δηλουμένων
 (τούτοις γὰρ ἔξωθεν κατ' ἐπακολούθησιν συνέ-
 ζευκται τὸ μεταφορικῶς καὶ ἐμφατικῶς καὶ κατὰ
 τοὺς ἄλλους τρόπους φράζειν), ζητήσομεν οὖν ἐκ
 ποτέρας ταῦτα μᾶλλον περιγίνεται, ἀρὰ γε τῆς
 κοινῆς συνηθείας ἢ τῆς ἀναλογίας, ἵνα ἐκείνη
 195 προσθώμεθα. βλέπομεν δὲ γε ὡς ἐκ τῆς κοινῆς
 συνηθείας μᾶλλον ἢ ὅτι ἐκ τῆς ἀναλογίας. ἐκείνη
 ἄρα ἀλλ' οὐ ταύτη χρηστέον. τὸ μὲν γὰρ τῆς
 ὀρθῆς πτώσεως ὁ Ζεὺς οὐσης τὰς πλαγίους προ-
 φέρεσθαι Ζηνός Ζηνί Ζῆνα καὶ τῆς κύου κυνός

argument also it is possible to establish the fact that
 we do not require the Art of Grammar in order to
 speak good Greek. In familiar intercourse ordinary 191
 people will either oppose us about certain phrases or
 will not oppose us. And if they oppose us, they will
 at once correct us, so that we have good Greek from
 those who live ordinary lives and not from the Gram-
 marians. And if they are not vexed but concur in the 192
 phrases we use as being clear and correct, we too
 shall abide by them.—Further, either all men, or
 most, or many converse in accordance with this
 "analogy" of theirs; but neither all, nor most, nor
 many do so; in fact hardly two or three are found to
 do so, and most men do not even know of it. Since, 193
 then, we must necessarily follow the customary usage
 of the many and not that of the two, one must declare
 that the observing of the common usage is useful for
 speaking good Greek, and not analogy. Certainly,
 in the case of nearly all the things which are of use in
 ordinary life, the fact that one is not hindered in
 supplying one's needs is a sufficient criterion. Where- 194
 fore, if "hellenism" has met with acceptance for
 two main reasons, its clear and agreeable presentation
 of the things described,^a—and following on these
 qualities and externally joined to them is the employ-
 ment of metaphor and emphasis and the other figures
 of speech,—we shall inquire by which of the two are 195
 these qualities better secured, by common usage or
 by analogy, so that we may adhere to it. And we
 clearly see that they are better secured by common
 usage than by analogy. So then the former and not
 the latter must be employed. Now when the nomin-
 ative case is Ζεὺς the formations Ζηνός, Ζηνί, Ζῆνα

^a Cf. § 176.

κυνί κύνα σαφές, ἀλλὰ καὶ ἀπρόσκοπον τοῖς πολλοῖς εἶναι φαίνεται· τοῦτο δὲ ἐστὶ τὸ τῆς κοινῆς συνηθείας. τὸ δὲ ἀπὸ τῆς Ζεὺς ὀρθῆς Ζεός λέγειν καὶ Ζεῖ καὶ Ζέα, καὶ ἀπὸ τῆς κύων σχηματίζειν κύωνος κύωνι κύωνα, ἢ ἀπὸ τῆς κυνός γενικῆς ἀξιοῦν τὴν ὀρθὴν κῦς ὑπάρχειν, καὶ ἐπὶ τῶν ῥηματικῶν φερῆσω λέγειν καὶ βλεπήσω ὡς ποιήσω καὶ θελήσω, οὐ μόνον ἀσαφές ἀλλὰ καὶ γέλωτος ἔτι δὲ προσκοπῆς ἄξιον εἶναι
 196 δοκεῖ· τοῦτο δὲ γίνεται ἀπὸ ἀναλογίας. τοῖνυν, ὡς ἔφην, οὐ ταύτη χρηστέον ἀλλὰ τῇ συνηθείᾳ.

Μήποτε δὲ καὶ περιτρέπονται, καὶ ἐάν τε θελήσωσιν ἐάν τε καὶ μή, ἀναγκασθήσονται χρῆσθαι μὲν τῇ συνηθείᾳ παραπέμψειν δὲ τὴν ἀναλογίαν. σκοπῶμεν δ' ἐντεῦθεν τὸ λεγόμενον, τουτέστιν ἐκ
 197 τῆς πρὸς αὐτοὺς ἀκολουθίας. ζητούμενου γὰρ τοῦ πῶς δεῖ λέγειν, χρῆσθαι ἢ χρᾶσθαι, φασὶν ὅτι χρᾶσθαι, καὶ ἀπαιτούμενοι τούτου τὴν πίστιν λέγουσιν ὅτι χρῆσις καὶ κτήσις ἀνάλογά ἐστιν ὡς οὖν κτᾶσθαι μὲν λέγεται κτήσθαι δὲ οὐ λέγεται, οὕτω καὶ χρᾶσθαι μὲν ῥηθήσεται χρῆσθαι δὲ οὐ
 198 πάντως. ἀλλ' εἰ ἐπακολουθῶν τις αὐτοῖς πύθιτο "αὐτὸ δὲ τοῦτο τὸ κτᾶσθαι ὅτι ὀρθῶς εἴρηται, ἀφ' οὗ καὶ τὸ χρᾶσθαι ἀποδείκνυμεν, πόθεν ἴσμεν;" φήσουσιν ὅτι ἐν τῇ συνηθείᾳ λέγεται. τοῦτο δὲ λέγοντες δώσουσι τὸ τῇ συνηθείᾳ δεῖν ὡς κριτη-
 199 ρίῳ προσέχειν, ἀλλὰ μὴ τῇ ἀναλογίᾳ. εἰ γὰρ ὅτι ἐν τῇ συνηθείᾳ λέγεται κτᾶσθαι, ῥήτεον καὶ χρᾶσθαι, ὀφείλομεν παρέντες τὴν ἀναλογικὴν τέχνην ἐπὶ τὴν συνηθειαν ἀναδραμεῖν, ἀφ' ἧς κάκεῖνη ἤρτηται.

Καὶ μὴν ἡ ἀναλογία ὁμοίων πολλῶν ὀνομάτων

as the oblique cases,—and κυνός, κυνί, κύνα, from the nominative κύων ("dog")—are clear and also appear to ordinary men unobjectionable; and these are the formations in common use. But to derive Ζεός, Ζεῖ, Ζέα from the nominative Ζεός, and from κύων to form κύωνος, κύωνι, κύωνα, or from the genitive κυνός to claim that the nominative is κῦς, and in the case of the forms of verbs to speak of φερῆσω and βλεπήσω, like ποιήσω and θελήσω, seems to be not only obscure but also deserving of ridicule and objectionable; and these are formations due to analogy. So then, as I 196 have said, we should not employ this, but common usage.

Perhaps they may shift their ground; but whether they wish it or not, they will be forced to employ customary usage and to dismiss analogy. Let us examine what they say by the method of pressing their own argument against themselves. When 197 it is asked whether one should say χρῆσθαι or χρᾶσθαι, they reply χρᾶσθαι, and on being asked for a proof of this, they assert that χρῆσις and κτήσις are analogous; as then we say κτᾶσθαι and do not say κτήσθαι, so we shall say χρᾶσθαι and never χρῆσθαι. But if one should press them further and 198 ask how do we know that this word κτᾶσθαι itself, from which we deduce χρᾶσθαι, is a correct form, they will reply that it is the form customarily used. And in so saying they will be granting that one should adopt common usage as the criterion and not analogy. For if one ought to say χρᾶσθαι be- 199 cause κτᾶσθαι is the customary form, we ought to give up the art of analogy and go back to customary usage upon which the former depends.

Now analogy, in fact, is the comparison of many

ἐστὶ παράθεσις, τὰ δὲ ὀνόματα ταῦτα ἐκ τῆς
 συνηθείας, ὥστε καὶ ἡ σύστασις τῆς ἀναλογίας
 200 ἀπὸ τῆς συνηθείας πρόεισιν. τούτου δὲ οὕτως
 ἔχοντος ἐρωτητέον τρόπῳ τῷδε. ἤτοι ἐγκρίνετε
 τὴν συνήθειαν ὡς πιστὴν πρὸς διάγνωσιν ἑλλη-
 νισμοῦ ἢ ἐκβάλλετε. εἰ μὲν ἐγκρίνετε, αὐτόθεν
 συνηθεται τὸ προκείμενον, καὶ οὐ χρεία τῆς ἀνα-
 λογίας· εἰ δὲ ἐκβάλλετε, ἐπεὶ καὶ ἡ ἀναλογία ἐκ
 ταύτης συνίσταται, ἐκβάλλετε καὶ τὴν ἀναλογίαν.
 καὶ πάλιν, ἄτοπον τὸ αὐτὸ καὶ ὡς πιστὸν προσ-
 201 ἴεσθαι καὶ ὡς ἄπιστον παραιτεῖσθαι. οἱ δὲ
 γραμματικοὶ θέλοντες τὴν συνήθειαν ὡς ἄπιστον
 ἐκβάλλειν καὶ πάλιν ταύτην ὡς πιστὴν παραλαμ-
 βάνειν, τὸ αὐτὸ πιστὸν ἅμα καὶ ἄπιστον ποιήσουσιν.
 ἵνα γὰρ δείξωσιν ὅτι οὐ διαλεκτέον κατὰ τὴν
 συνήθειαν, εἰσάγουσι τὴν ἀναλογίαν· ἡ δὲ ἀναλογία
 οὐκ ἰσχυροποιεῖται, εἰ μὴ συνήθειαν ἔχοι τὴν
 202 βεβαιούσαν· τῇ ἄρα συνηθείᾳ ἐκβάλλοντες τὴν
 συνήθειαν τὸ αὐτὸ πιστὸν ἅμα καὶ ἄπιστον ποιή-
 σουσιν. ἐκτὸς εἰ μὴ τι φήσουσι μὴ τὴν αὐτὴν
 συνήθειαν ἐκβάλλειν ἅμα καὶ προσίεσθαι, ἀλλ'
 ἄλλην μὲν ἐκβάλλειν ἄλλην δὲ προσίεσθαι. ὅπερ
 καὶ λέγουσιν οἱ ἀπὸ Πινδαρίωνος. ἀναλογία,
 φασίν, ὁμολογουμένως ἐκ τῆς συνηθείας ὀρμάται·
 203 ἔστι γὰρ ὁμοίου τε καὶ ἀνομοίου θεωρία, τὸ δὲ
 ὁμοιον καὶ ἀνόμοιον ἐκ τῆς δεδοκμασμένης λαμ-
 βάνεται συνηθείας, δεδοκμασμένη δὲ καὶ ἀρχαιο-
 τάτη ἐστὶν ἢ Ὀμήρου ποιήσις· ποίημα γὰρ οὐδὲν
 πρᾶσβύτερον ἦκεν εἰς ἡμᾶς τῆς ἐκείνου ποιήσεως.
 διαλεξόμεθα ἄρα τῇ Ὀμήρου κατακολουθοῦντες
 204 συνηθείᾳ. ἀλλὰ πρῶτον μὲν οὐχ ὑπὸ πάντων
 ὁμολογεῖται ποιητῆς ἀρχαιότατος εἶναι Ὀμηρος·

similar nouns, and these nouns are taken from
 customary speech, so that the substance of analogy is
 derived from customary speech. This being so, one 200
 must question them in this way : Either you accept
 customary usage as reliable for the distinguishing of
 "hellenism" or you reject it. If you accept it, the
 problem before us is settled of itself, and there is no
 need of analogy ; but if you reject it, you reject
 analogy as well, since from it analogy derives its
 substance.—Again, it is absurd to admit a thing as
 trustworthy and to dismiss it as untrustworthy. But 201
 the Grammarians, in their desire to reject common
 usage as untrustworthy and contrariwise to accept it
 as trustworthy, will cause the same thing to be at
 once trustworthy and untrustworthy. For in order to
 prove that we should not converse in accordance with
 common usage, they introduce analogy ; but analogy
 is not made secure unless it has common usage to
 support it ; so by rejecting common usage by means 202
 of common usage, they will cause the same thing to
 be at once trustworthy and untrustworthy. Unless,
 indeed, they shall declare that they do not accept
 and reject simultaneously the same common usage,
 but reject one sort and accept another sort. And
 that is what is said by the School of Pindarion.
 Analogy, they say, confessedly sets out from common
 usage ; for it is the consideration of the like and the 203
 unlike, and the like and the unlike are derived from
 approved common usage, and the poetry of Homer is
 that which is approved and most ancient ; for no
 poem older than his poetry has come down to us.
 Thus we shall converse following the usage of Homer.
 But, in the first place, it is not agreed by all that 204
 Homer is the most ancient poet ; for some say that

ἔνιοι γὰρ Ἡσίοδον προήκειν τοῖς χρόνοις λέγουσιν,
 Λίνον τε καὶ Ὀρφέα καὶ Μουσαῖον καὶ ἄλλους
 παμπληθεῖς. οὐ μὴν ἀλλὰ καὶ πῦθάνον ἐστὶ γεγο-
 νέναι μὲν τινὰς πρὸ αὐτοῦ καὶ κατ' αὐτὸν ποιητάς,
 ἐπεὶ καὶ αὐτὸς πού φησι

τὴν γὰρ αἰοιδὴν μᾶλλον ἐπικλείουσ' ἄνθρωποι
 ἤτις ἀκούοντεςσι νεωτάτῃ ἀμφιπέληται,

τούτους δὲ ὑπὸ τῆς περὶ αὐτὸν λαμπρότητος
 205 ἐπεσκοπήσθαι. καὶ εἰ ἀρχαιότατος δὲ ὁμολογοῖτο
 τυγχάνειν Ὀμηρος, οὐδὲν εἴρηται ὑπὸ τοῦ Πιν-
 δαρίωνος ἰκνούμενον. ὥσπερ γὰρ προηγοροῦμεν
 περὶ τοῦ πότερόν ποτε τῇ συνηθείᾳ ἢ τῇ ἀναλογίᾳ
 χρηστέον, οὕτω καὶ νῦν διαφορήσομεν πότερον
 τῇ συνηθείᾳ ἢ τῇ ἀναλογίᾳ, καὶ εἰ τῇ συνηθείᾳ,
 ἀρα τῇ καθ' Ὀμηρον ἢ τῇ τῶν ἄλλων ἀνθρώπων.
 206 πρὸς ὅπερ οὐδὲν εἴρηται. εἶτα κἀκείνην μάλιστα
 δεῖ τὴν συνηθειαν μεταδιώκειν ἢ προσχρῶμενοι
 οὐ γελασθησόμεθα· τῇ δὲ Ὀμηρικῇ κατακολου-
 θούντες οὐ χωρὶς γέλωτος ἐλληνιοῦμεν, μάρτυροι
 λέγοντες καὶ "σπάρτα λέλυνται" καὶ ἄλλα τού-
 των ἀποπώτερα. τοίνυν οὐδ' οὕτως ἐστὶν ὁ λόγος
 ὑγιής, μετὰ τοῦ συγκεχωρηθῆαι τὸ κατασκευα-
 ζόμενον ὑφ' ἡμῶν, τουτέστι τὸ μὴ χρῆσθαι ἀνα-
 207 λογίᾳ. τί γὰρ διήνεγκεν εἶτ' ἐπὶ τὴν τῶν πολλῶν
 εἶτ' ἐπὶ τὴν Ὀμήρου συνηθειαν ἔλθειν; ὥς γὰρ
 ἐπὶ τῆς τῶν πολλῶν τηρήσεώς ἐστι χρεία ἄλλ'
 οὐ τεχνικῆς ἀναλογίας, οὕτω καὶ ἐπὶ τῆς Ὀμήρου
 τηρήσαντες γὰρ αὐτοὶ πῶς εἴωθε λέγειν, οὕτω καὶ
 208 διαλεξόμεθα. τὸ δὲ ὄλον, ὥς αὐτὸς Ὀμηρος οὐκ
 ἀναλογία προσεχρήσατο ἀλλὰ τῇ τῶν κατ' αὐτὸν
 ἀνθρώπων συνηθείᾳ κατηκολούθησεν, οὕτω καὶ

Hesiod preceded him in time, Linos, too, and Orpheus
 and Musaeus and a host of others. And, in fact, it is
 probable that there were some poets before Homer
 and in his time (since he himself says somewhere a—

Surely that song above all by men is most loudly applauded
 Which to their listening ears as the newest of songs re-
 soundeth),

and that these poets were eclipsed by his own brilli-
 ance. And even if it should be agreed that Homer 205
 is the most ancient, what Pindarion has asserted is
 not convincing. For just as we questioned before
 whether one should adopt common usage or analogy,
 so, too, now we shall be in doubt whether to adopt
 common usage or analogy; and if usage, is it to be
 that of Homer or that of all other men; and as to this
 Pindarion has said nothing. Further, we should 206
 follow that usage above all the adoption of which will
 not bring ridicule upon us; but if we follow Homer's,
 our Greek speech will not escape ridicule, when we
 say μάρτυροι (for μάρτυρες)^b and σπάρτα λέλυνται (for
 σπάρτα λέλυται),^c and other things still more absurd.
 Neither, then, is this argument sound, besides the
 fact that our contention is conceded, namely, that
 analogy should not be used. For what's the odds 207
 whether we have recourse to the usage of the many
 or to that of Homer? For just as there is need of
 observation, but not of technical analogy, in the case
 of the usage of the many, so there is also in the case
 of that of Homer; for when we have observed how he
 is wont to speak, we ourselves too will converse in the
 same way. To sum up, just as Homer himself made 208
 no use of analogy but followed the usage of the men of

^a Cf. Hom. Od. i. 351 f.

^b Cf. Hom. Il. ii. 302.

^c Cf. Hom. Il. ii. 135.

ἡμεῖς οὐκ ἀναλογίας πάντως ἐξόμεθα βεβαιωτὴν ἐχούσης Ὅμηρον, ἀλλὰ τὴν συνήθειαν τῶν καθ' αὐτοὺς ἀνθρώπων παραπλασόμεθα.

- 209 Ἄρτι μὲν οὖν ἐκ τῆς πρὸς τοὺς γραμματικούς ἀκολουθίας συνήκται τὸ παρέλκει μὲν τὴν ἀναλογίαν πρὸς ἑλληνισμόν, ἐπιχρηστεῖν δὲ τὴν τῆς συνηθείας παρατήρησιν· δηλον δὲ ἴσως ἔσται ἐκ
210 τῶν ῥητῶν. ὀριζόμενοι γὰρ τὸν τε βαρβαρισμὸν καὶ τὸν σολοικισμόν φασὶ "βαρβαρισμὸς ἐστὶ παράπτωσις ἐν ἀπλῇ λέξει παρὰ τὴν κοινὴν συνήθειαν" καὶ "σολοικισμὸς ἐστὶ παράπτωσις ἀσυνήθης κατὰ τὴν ὄλην σύνταξιν καὶ ἀνακόλουθος."
211 πρὸς ἃ δυνάμεθα λέγειν εὐθύς, ἀλλ' εἰ ὁ μὲν βαρβαρισμὸς ἐστὶν ἐν ἀπλῇ λέξει ὁ δὲ σολοικισμὸς ἐν συνθέσει λέξεων, δεδεικται δὲ ἔμπροσθεν ὡς οὕτε ἀπλῆ ἔστι λέξις τις οὕτε σύνθεσις λέξεων,
212 οὐδὲν ἐστὶ βαρβαρισμὸς ἢ σολοικισμὸς. πάλιν εἰ ἐν λέξει μιᾷ ὁ βαρβαρισμὸς νοεῖται καὶ ἐν συνθέσει λέξεων ὁ σολοικισμὸς, ἀλλ' οὐκ ἐν τοῖς ὑποκειμένοις πράγμασι, πῶς ἡμάρτον εἰπὼν "οὗτος," δείκνυμι δὲ γυναῖκα, ἢ "αὕτη," δείκνυμι δὲ νεανίαν; οὕτε γὰρ ἐσολοίκισα· οὐ γὰρ σύνθεσιν πολλῶν ἀκαταλλήλων λέξεων προηνεγάμην, ἀλλ'
213 ἀπλὴν τὴν οὗτος λέξιν ἢ αὕτη· οὐτ' ἐβαρβάρισα· οὐδὲν γὰρ ἀσύνηθες εἶχεν ἢ οὗτος λέξις, ὡς ἢ παρὰ τοῖς Ἀλεξανδρεῦσιν ἐλήλυθαν καὶ ἀπελήλυθαν.

Πλὴν τοιαῦτα μὲν πολλὰ πρὸς τοὺς γραμματικούς
214 τικούς ἐνδέχεται λέγειν· ἵνα δὲ μὴ δοκῶμεν ἐν πᾶσιν ἀπορητικοὶ τυγχάνειν, ἐπὶ τὴν ἐξ ἀρχῆς πρόθεσιν ἀναδραμόντες φήσομεν ὡς εἴπερ ὁ βαρ-

his age, so too will we by no means cleave to an analogous form which has the authority of Homer, but will conform our speech to the usage of the men of our own age.

So it has just been concluded by the method of 209 pressing the Grammarians' arguments against themselves, that analogy is superfluous for "hellenism," whereas the observance of common usage is serviceable; and this will, no doubt, be plain from their own assertions. Thus in defining "barbarism" and 210 "solecism" they say that "barbarism is a blunder in a single word contrary to common usage,"^a and "solecism is a blunder contravening common usage in respect of the whole construction, and incoherent." To this we can at once reply, that if the "barbarism" 211 is in a single word and the "solecism" in a combination of words, and it has been shown above^b that no simple word nor any combination of words exists, then neither "barbarism" nor "solecism" is anything. Again, if the "barbarism" is perceived in 212 one word and the "solecism" in a combination of words, but not in the underlying objects, how am I wrong in saying οὗτος when I point to a woman, or αὕτη when I point to a young man? For I have not committed a solecism, since I have not uttered a combination of many incongruous words, but only the single word οὗτος or αὕτη; nor have I been 213 guilty of a barbarism, for the word οὗτος contains nothing contrary to common usage, as does the Alexandrians' ἐλήλυθαν and ἀπελήλυθαν.^c

However, it is possible to bring many such arguments against the Grammarians. But lest we should 214 seem to be sceptical about everything, returning to the original theme we shall assert that if a "bar-

^a Cf. § 231.

^b Cf. §§ 131, 165 ff.

^c Instead of the regular 3 pers. plur. endings in -θασι.

βαρισμός παράπτωσις ἐστὶ παρὰ τὴν κοινὴν συν-
 ήθειαν ἐν μιᾷ λέξει θεωρούμενος, ὡσαύτως δὲ καὶ
 ὁ σολοικισμὸς ἐν πολλαῖς λέξεσι τὴν ὑπόστασιν
 λαμβάνων, καὶ ἔστι βάρβαρον μὲν τὸ τράπεσα
 διὰ τὸ μὴ σύνηθες εἶναι τὸ ῥῆμα, σόλοικον δὲ τὸ
 “πολλὰ περιπατήσας κοπιᾷ μου τὰ σκέλη” διὰ
 τὸ μὴ λέγεσθαι τῇ κοινῇ συνηθείᾳ, ὡμολόγηται
 ὅτι ἢ μὲν ἀναλογιστικὴ τέχνη ὄνομα κενόν ἐστὶ
 πρὸς τὸ μὴ βαρβαρίζειν ἢ σολοικίζειν, δεῖ δὲ τὴν
 συνήθειαν παρατηρεῖν καὶ ἀκολουθῶν αὐτῇ δια-
 215 λέγεσθαι. εἰ μὲν γὰρ μετακαθίσαντες λέγουεν
 βαρβαρισμὸν ἀπλῶς παράπτωσιν ἐν ἀπλῇ λέξει,
 δίχα τοῦ προσθεῖναι τὸ παρὰ τὴν κοινὴν συνή-
 θειαν, καὶ σολοικισμὸν παράπτωσιν κατὰ τὴν ὅλην
 σύνταξιν καὶ ἀνακόλουθον, χωρὶς τοῦ παραλαβεῖν τὸ
 ἀσύνηθες, ἔτι¹ χειρόν τι κινήσουσιν ἑαυτοῖς πρᾶγμα.
 τὰ γὰρ τοιαῦτα καθ’ ὅλην τὴν σύνταξιν ἀνακολου-
 θοῦντα² ἔξουσιν, “Ἀθῆναι καλὴ πόλις, Ὁρέσσης
 καλὴ τραγωδία, ἢ βουλὴ οἱ ἐξακόσιοι.” ἂ δεήσει
 σολοικισμοὺς λέγειν, οὐχὶ δὲ γε σολοικισμοὶ
 216 τυγχάνουσι διὰ τὸ σύνηθες. οὐκ ἄρα ψιλῇ τῇ
 ἀκολουθίᾳ κριτέον τὸν σολοικισμὸν, ἀλλὰ τῇ
 συνηθείᾳ.

Εὖ δ’ ἂν ἔχοι καὶ μετὰ τὴν ἐκ τῆς ἀκολουθίας
 καὶ τῶν ῥητῶν ἔνστασιν ἔτι καὶ ἀπὸ τῆς κατὰ τὸ
 217 ὁμοίον μεταβάσεως αὐτοὺς δυσωπεῖν. εἴπερ γὰρ
 τοῦ ὁμοίου θεωρητικοὶ καθεστήκασιν, ἐπεὶ τῶ
 εἰς ἀντικνήμιον τύπτεσθαι ἀνάλογόν ἐστὶ τὸ εἰς

¹ ἔτι scripsi: ἢ mss., Bekk.: ἢ Fabr.

² ἀνακολουθοῦντα Fabr.: ἀκολουθοῦντα mss., Bekk.

^a The usual construction would have περιπατήσαντος, geni-
 tive agreeing with μου (“My legs ache from walking much”).

barism” is a blunder contrary to common usage and
 observed in a single word, and likewise a “solecism”
 finds its existence in a number of words, and the
 word τράπεσα (for τράπεζα, “a table”) is a barbarism
 because it is contrary to common usage, and the
 sentence πολλὰ περιπατήσας κοπιᾷ μου τὰ σκέλη^a is a
 solecism because it is a construction not employed in
 common usage,—then, if so, it is conceded that the
 art of analogy is an empty name, useless for the
 avoidance of barbarisms or solecisms, and one ought
 to observe the rules of common speech, and converse
 in accordance therewith. For if they were to change 215
 their ground and say simply that “barbarism” is a
 “blunder in a single word,” without adding “con-
 trary to common usage,” and that “solecism” is “a
 blunder in respect of the whole construction and
 incoherent,” without the addition of “contravening
 common usage,” they will bring upon themselves a
 still worse consequence. For “in respect of the whole
 construction” they will have such “incoherent”
 sentences as these,—Ἀθῆναι καλὴ πόλις, Ὁρέσσης
 καλὴ τραγωδία, ἢ βουλὴ οἱ ἐξακόσιοι,^b which they will
 have to term “solecisms,” whereas they are not
 solecisms because in common use. Hence, the sole- 216
 cism is not to be judged by grammatical concord
 alone but by common usage.

After our objection based on pressing their argu-
 ments and on their rules^c it would be well also to
 put them to shame in respect of transition based on
 analogy. For if they are observant of similarity, inas- 217
 much as εἰς τὴν ῥίνα τύπτεσθαι (“to be struck on the

^b Termed “solecisms” because (1) Ἀθῆναι is plur. in
 agreement with the sing. καλὴ πόλις; (2) Ὁρέσσης masc. with
 fem. καλὴ τραγωδία; (3) ἢ βουλὴ fem. sing. with masc. plur.
 οἱ ἐξακόσιοι. ^c Cf. § 209.

τὴν ῥίνα τύπτεσθαι καὶ τὸ εἰς τὴν γαστέρα, λέγεται δὲ τὸ πρῶτον ἀντικνημάζειν, ἀναλόγως καὶ τὸ γαστρίζειν ἢ μυκτηρίζειν. τὸ δὲ αὐτὸ καὶ ἐπὶ τοῦ ἰππάζεσθαι καὶ κατακρημνίζεσθαι καὶ ἡλιάζεσθαι ὑποδεικτέον. οὐ λέγομεν δὲ ταῦτα διὰ τὸ παρὰ τὴν κοινὴν εἶναι συνήθειαν· τοῖνυν οὐδὲ τὸ κνήσω οὐδὲ τὸ φερῆσω καὶ τὰ ἄλλα πάντα, ἅπερ ἀναλογίας ἐστὶν ὀφειλόμενα λέγεσθαι, διὰ τὸ μὴ

218 κατὰ τὴν συνήθειαν λέγεσθαι. οὐ μὴν ἄλλ' εἶπερ ἄριστα μὲν θρακιστὶ διαλέγεσθαι φαμεν τὸν ὡς σύννηθές ἐστι Θραξὶ διαλεγόμενον, καὶ κάλλιστα Ῥωμαῖστὶ τὸν ὡς σύννηθες Ῥωμαίους, ἀκολουθήσει καὶ τὸ ἑλληνιστὶ ὑγιῶς διαλέγεσθαι τὸν ὡς σύννηθες Ἕλλησι διαλεγόμενον, ἐὰν τῇ συνηθείᾳ ἀλλὰ μὴ τῇ διατάξει κατακολουθῶμεν. τῇ ἄρα συνηθείᾳ, οὐ τῇ ἀναλογίᾳ κατακολουθοῦντες ἑλληνιοῦμεν.

219 καθόλου τε ἤτοι σύμφωνός ἐστι τῇ συνηθείᾳ ἢ ἀναλογία ἢ διάφωνος. καὶ εἰ μὲν σύμφωνος, πρῶτον μὲν ὡς ἐκείνη οὐκ ἐστὶ τεχνικὴ, οὕτως οὐδὲ αὕτη γενήσεται τέχνη· τὸ γὰρ ἀτεχνία συμφωνοῦν πάντως καὶ αὐτὸ ἐστὶν ἀτεχνον. καὶ ἄλλως τὸ κατ' ἐκείνην ἑλληνικὸν καὶ κατὰ ταύτην¹ ἐκείνην συμφωνοῦσαν γενήσεται ἑλληνικόν, καὶ τὸ κατ'

220 ἐκείνην ἔσται τοιοῦτον. τούτου δ' οὕτως ἔχοντος οὐ δεησόμεθα τῆς ἀναλογίας πρὸς διάγνωσιν τοῦ ἑλληνισμοῦ, ἔχοντες εἰς τοῦτο τὴν συνήθειαν. εἰ δὲ διάφωνός ἐστιν αὕτη, πάντως ἑτέραν εἰσηγούμενὴν συνήθειαν παρ' ἐκείνην καὶ οἰονεὶ βάρβαρον ἀδόκιμος γενήσεται καὶ ὡς προσκοπήν ἐμποιοῦσα τελέως ἄχρηστος.

¹ κατὰ ταύτην scripsi: κατ' αὐτήν mss., Bekk. (? εἰ) τὸ κατὰ ταύτην, deletis κατ' ἐκ. ἑλλ.).

nose ") and εἰς τὴν γαστέρα (" on the belly ") are analogous to εἰς ἀντικνήμιον τύπτεσθαι (" to be struck on the shin "), and this is expressed by ἀντικνημάζειν, we must also say by analogy γαστρίζειν or μυκτηρίζειν. Other examples of the same rule are ἰππάζεσθαι (" to be driven ") and κατακρημνίζεσθαι (" to be thrown down headlong ") and ἡλιάζεσθαι (" to sun oneself "). But we do not employ these words since they are contrary to common usage. So, too, we do not use the forms κνήσω or φερῆσω, or any of the other formations which by analogy ought to be used, because they do not conform to the common 218 usage. If, however, we declare that he talks the best Thracian who talks as is customary with the Thracians, and he the best Latin who talks as is customary with the Romans, then it will follow that he who talks as is customary with the Greeks is talking good Greek, if we are to follow customary usage and not an artificial system. Thus by following common usage and not 219 analogy we shall speak good Greek.—In general, too, analogy either agrees with common usage or disagrees. And if it agrees, then, firstly, since the latter is not a matter of art, so too the former will not be an art; for what agrees with the artless must certainly be artless itself.—Further, what is Greek according to common usage will also be Greek according to analogy which agrees therewith, and the Greek commonly used will be of that kind. This being so, 220 we shall not need analogy for distinguishing good Greek, since for this purpose we possess common usage. If, on the other hand, analogy disagrees, then, since it introduces another usage beside the common,—that of barbarians, as it were,—it will be disapproved and, as causing offence, it will be completely useless.

221 Ἐπιχειρητέον δὲ καὶ ἀπὸ τῆς συστάσεως τῆς τέχνης αὐτῶν. θέλουσι μὲν γὰρ καθολικά τινα θεωρήματα συστησάμενοι ἀπὸ τούτων πάντα τὰ κατὰ μέρος κρίνειν ὀνόματα, εἴτε ἑλληνικά ἐστὶν εἴτε καὶ μὴ· οὐ δύνανται δὲ [καὶ] τοῦτο ποιεῖν διὰ τὸ μῆτε τὸ καθολικὸν αὐτοῖς συγχωρεῖσθαι ὅτι καθολικὸν ἐστὶ, μῆτ' ἄλλως ἀναπτυσσόμενον τοῦτο 222 τὴν τοῦ καθολικοῦ σώζειν φύσιν. λαμβανέσθω δὲ εἰς τοῦτο παράδειγμα ἀπ' αὐτῶν τῶν γραμματικῶν. ζητήσεως γὰρ οὔσης ἐπὶ τινος τῶν κατὰ μέρος ὀνομάτων, ὅλον ἐπὶ τοῦ εὐμενῆς, πότερον χωρὶς τοῦ σ προενεκτέον ἐστὶ τὴν πλάγιον πτώσιν, εὐμενοῦ λέγοντας, ἢ σὺν τῷ σ, εὐμενοῦς, πάρεσιν οἱ γραμματικοὶ καθολικὸν τι προφερόμενοι καὶ ἀπὸ τούτου τὸ ζητούμενον βεβαιοῦντες. φασι γὰρ “ πᾶν ὄνομα ἀπλοῦν, εἰς ἧς λήγον, ὀξύτονον, τουτὶ ἐξ ἀνάγκης σὺν τῷ σ κατὰ τὴν γενικὴν ἐξενεχθήσεται, ὅλον εὐφυῆς εὐφυοῦς, εὐσεβῆς εὐσεβοῦς, εὐκλεῆς εὐκλεοῦς. τοῖνυν καὶ τὸ εὐμενῆς ὀξύτόνως ἐκφερόμενον παραπλησίως τούτοις 223 λέγοντας.” οὐκ ᾔδεσαν δὲ οἱ θαυμάσιοι πρῶτον μὲν ὅτι ὁ εὐμενοῦ ἀξίων λέγειν οὐ δώσει αὐτοῖς καθολικὸν εἶναι τὸ παράπηγμα· τοῦτο γοῦν αὐτὸ τὸ εὐμενῆς ἀπλοῦν ὄνομα καθεστῶς καὶ ὀξύτονον οὐ φήσει σὺν τῷ σ ἐκφέρεσθαι, ἀλλὰ ἐκείνους τὸ 224 ζητούμενον ὡς ὁμολογούμενον συναρπάζειν. ἄλλως τε, εἰ καθολικὸν ἐστὶ τὸ παράπηγμα, ἦτοι πάντα τὰ κατὰ μέρος ὀνόματα ἐπελθόντες καὶ τὴν ἐν αὐτοῖς ἀναλογίαν κατανοήσαντες συνέθεσαν αὐτό, ἢ οὐ πάντα. ἀλλὰ πάντα μὲν οὐκ ἐπεληλύθασιν· ἄπειρα γὰρ ἐστὶ, τῶν δὲ ἀπειρῶν οὐκ ἔστι τις

One may argue also from the structure of their Art. 221 For after constructing certain universal rules they desire to judge by these all the particular words, as to whether they are good Greek or not ; but this they are unable to do since it is not conceded to them that their “ universal ” is universal, nor yet that it retains its nature as universal when applied in detail. To 222 make this clear let us take an example from the Grammarians themselves. When an inquiry is made respecting one of the particular words, such as εὐμενῆς, as to whether one should form the genitive case without the σ, and say εὐμενοῦ, or with the σ, εὐμενοῦς, the Grammarians come forward and propose a universal rule, and by this establish the point in question. For they assert that “ every simple word ending in ης and oxytone must necessarily be declined in the genitive with σ, as for instance εὐφυῆς εὐφυοῦς, εὐσεβῆς εὐσεβοῦς, εὐκλεῆς εὐκλεοῦς. Hence, as εὐμενῆς, like these, is pronounced as oxytone, we must decline it in the genitive with σ, and say εὐμενοῦς.” But our estimable friends failed to notice that, in 223 the first place, he who claims to say εὐμενοῦ will not grant them that their rule is universal: he will assert that this very word εὐμενῆς, which is a single word and oxytone, is not declined with a σ ; but they, by taking as settled the point in doubt, “ beg the question.”—Furthermore, if the rule is 224 universal, they have constructed it either after surveying all the particular words and noting the analogy they present, or else not all of them. But they have not surveyed all of them, for they are infinite in number, and there is no knowledge of

γνώσις. εἰ δὲ τινά, πόθεν ὅτι πᾶν ὄνομα τοιοῦτόν
 ἔστι; οὐ γὰρ ὅτι τισὶ συμβέβηκεν ὀνόμασι, τοῦτο
 225 καὶ πᾶσιν. ἀλλ' εἰσὶ τινες οἱ πρὸς τοῦτο γελοίως
 ἀπαντῶντες καὶ λέγοντες ὅτι ἐκ πλείονων ἔστι
 τὸ καθολικὸν παράπηγμα. οὐχ εἴρων γὰρ ὅτι
 πρῶτον μὲν ἄλλο τί ἔστι τὸ καθολικὸν καὶ ἄλλο
 τὸ ὡς ἐπὶ τὸ πολὺ, καὶ τὸ μὲν καθολικὸν οὐδέ-
 ποτε ἡμᾶς διαψεύδεται, τὸ δ' ὡς τὸ πολὺ κατὰ
 226 τὸ σπάνιον· εἶθ' ὅτι καὶ εἰ ἐκ πολλῶν ἔστι τὸ
 καθολικόν, οὐ πάντως τὸ τοῖς πολλοῖς ὀνόμασι
 συμβεβηκός, τοῦτο ἔξ ἀνάγκης καὶ πᾶσι τοῖς
 ὁμοειδέσι συμβέβηκεν, ἀλλ' ὃν τρόπον ἐν πολλοῖς
 καὶ ἄλλοις φέρει τινὰ κατὰ μονοειδειαν ἢ φύσιν,
 ὅλον ἐν ὄφεσι μὲν ἀπίροισι οὖσι τὸν κεράστην
 κερασφόρον, ἐν τετράποσι δὲ τὸν ἐλέφαντα προ-
 βοσκίδι κεκρημένον, ἐν ἰχθύσι δὲ τὸν γαλεὸν
 ζωοτόκον, ἐν λίθοις δὲ τὸν μάγνητα σιδηραγωγόν,
 οὕτως εὐλογόν ἔστι καὶ ἐν πολλοῖς ὁμοιοπτῶτοις
 ὀνόμασιν εἶναί τι ὄνομα ὃ μὴ ὁμοίως τοῖς πολλοῖς
 227 ὀνόμασι κλίνεται. ὅθεν παρέντες ζητεῖν εἰ ἀνά-
 λογόν ἔστι τοῖς πολλοῖς, σκοπῶμεν πῶς αὐτῷ
 χρῆται ἢ συνήθεια, πότερον ἀνάλογον ἐκείνοις ἢ
 κατὰ ἴδιον τύπον· καὶ ὡς ἂν ἡ χρωμένη, οὕτω καὶ
 ἡμεῖς προοισόμεθα.

Περιδιωκόμενοι δὴ ποικίλως οἱ γραμματικοὶ
 228 θέλουσιν ἀναστρέφειν τὴν ἀπορίαν. πολλαὶ γάρ,
 φασίν, εἰσὶ συνήθειαι, καὶ ἄλλη μὲν Ἀθηναίων
 ἄλλη δὲ Λακεδαιμονίων, καὶ πάλιν Ἀθηναίων
 διαφέρουσα μὲν ἢ παλαιὰ ἐξηλλαγμένη δὲ ἢ νῦν,

infinites. And if they have surveyed some, how do
 they know that every word is of a like kind? For
 that which is a property of some words is not a
 property of all. But to this there are some who make 225
 an absurd reply, saying that the universal rule is
 based on the majority of cases. For they have failed
 to see that, firstly, what is "universal" is one thing
 and what holds good "for the most part" is another,
 and that which is universally true we never find false,
 but what is true "for the most part" is false occa-
 sionally; nor, secondly, have they seen that even if 226
 the universal is composed of many, it is not always
 the case that the property of the many words is
 necessarily the property of all words similarly formed,
 but just as in many other things nature produces
 some with a unique form,—as, for instance, the
 horned "cerastes" among the infinite number of
 serpents, and amongst quadrupeds the elephant
 furnished with a proboscis, and amongst fish the
 viviparous shark, and amongst stones the magnet
 which attracts iron,—so also it is reasonable that
 amongst the many words of similar declension there
 should exist a certain word which is not declined like
 the many words. Hence, let us forgo any inquiry 227
 as to its analogy with the many and consider how it
 is treated by common usage, whether as analogous
 to the many or as a peculiar type; and whichever
 way it is treated, in that way we too will pronounce it.

The Grammarians, then, being chased round by
 various means, desire to reverse the Sceptics' argu-
 ment. The usages of speech, they say, are many,— 228
 there is one of the Athenians, another of the Lacedaemonians;
 and of the Athenians, again, the old
 usage is of one sort and the present usage of a differ-

καὶ οὐχ ἢ αὐτὴ μὲν τῶν κατὰ τὴν ἀγροικίαν ἢ αὐτὴ δὲ τῶν ἐν ἄστει διατριβόντων, παρὸ καὶ ὁ κωμικός λέγει Ἀριστοφάνης

διάλεκτον ἔχοντα μέσσην πόλεως,
οὔτ' ἀστείαν ὑποθηλυτέραν
οὔτ' ἀνελεύθερον ὑπαγροικότεραν.

- 229 πολλῶν οὖν οὐσῶν συνηθειῶν, [ὡς] φασί, ποία χρησόμεθα; οὔτε γὰρ πάσαις κατακολουθεῖν δυνατὸν διὰ τὸ μάχεσθαι πολλάκις, οὔτε τινὶ ἐξ αὐτῶν, ἐὰν μὴ τις τεχνικῶς προκριθῆ. ἀλλὰ πρῶτον μὲν, φήσομεν, τὸ ζητεῖν ποία χρηστέον συνηθεία ἐστὶν ἴσον τῷ εἶναι τινα τέχνην περὶ ἑλληνισμὸν. αὕτη γάρ, φημί δ' ἢ ἀναλογία, ὁμοίου καὶ ἀνομοίου ἐστὶ θεωρία· τὸ δὲ ὅμοιον καὶ ἀνόμοιον λαμβάνετε ἀπὸ τῆς συνηθείας· κἂν μὲν ἢ τετριμμένον, χρῆσθε αὐτῷ, εἰ δὲ μὴ, οὐκέτι.
- 230 πευσόμεθα οὖν καὶ ἡμεῖς, ἀπὸ ποίας συνηθείας λαμβάνετε τὸ ὅμοιον καὶ τὸ ἀνόμοιον; πολλὰ γὰρ εἰσι καὶ πολλάκις μαχόμεναί. ὅπερ δὲ ἀπολογούμενοι πρὸς τοῦτο εἰρήτε, τοῦτο καὶ παρ' ἡμῶν ἀκούσεσθε. καὶ πάλιν ὅταν λέγητε τὸν βαρβαρισμὸν παράπτωσιν ἐν ἀπλῇ λέξει παρὰ τὴν συνηθειαν, ἀνταπορήσομεν λέγοντες ποίαν φατέ πολλῶν οὐσῶν, καὶ ἢ ἂν εἴπητε, ταύτη φήσομεν
- 232 καὶ ἡμεῖς ἀκολουθεῖν. κοινῆς οὖν οὐσης ἀπορίας οὐκ ἀπορος ἢ παρ' ἡμῶν ταύτης ἐστὶ λύσις. τῶν γὰρ συνηθειῶν αἱ μὲν εἰσι κατὰ τὰς ἐπιστήμας αἱ δὲ κατὰ τὸν βίον. καὶ γὰρ ἐν φιλοσοφίᾳ ὀνομάτων τινῶν ἐστὶν ἀποδοχὴ καὶ ἐν ἰατρικῇ ἐξαιρέτως, καὶ ἤδη κατὰ μουσικὴν καὶ γεωμετρίαν. ἐστὶ δὲ καὶ βιωτικὴ τις ἀφελῆς συνηθεία τῶν

ent sort; and that of country folk is not the same as that of townspeople, so that Aristophanes the comic poet says,^a—

Speaking like middle-class citizens all,
Not with the fop's effeminate drawl,
Nor with the rustics' vulgar bawl.

The usages, then, being many, which of them (they 229 ask) are we to adopt? For it is not possible to follow them all, since they often conflict, nor yet some one of them, unless some one be preferred on grounds of art. But firstly, we shall reply, to inquire which usage should be adopted is equivalent to asserting the existence of an art of "hellenism." And this art,—I mean "analogy,"—is the consideration of the similar and dissimilar^b; and you take over the similar and dissimilar from common usage; and if it be a form in current use you employ it, otherwise you do not. So we 230 too shall inquire from which usage do you take over the similar and dissimilar. For usages are many and often conflicting. And the answer you give, in self-defence, to this question is what you shall hear in turn from us. And again, when you say that a "barbar- 231 ism" is a blunder in a single word contrary to common usage, we shall retort with the question, "Which of the many usages do you mean?" and whichever you mention, that, we will say, is the one we too follow. The doubt, then, being shared by us both, the solution 232 we give of it is not open to doubt. Of usages in speech some are found in the sciences, some in ordinary converse. Thus in philosophy and in medicine especially certain terms are in favour, and so too in music and geometry. And there is the plain untechnical usage of

^a Cf. Arist. *Frag.* 552 (Dindorf).

^b Cf. § 202.

- 233 ἰδιωτῶν, κατὰ πόλεις καὶ ἔθνη διαφέρουσα. ὅθεν ἐν φιλοσοφίᾳ μὲν τῇ τῶν φιλοσόφων στοιχίσομεν, ἐν ἰατρικῇ δὲ τῇ ἰατρικωτέρᾳ, ἐν δὲ τῷ βίῳ τῇ συνηθεστέρᾳ καὶ ἀπερίττῳ καὶ ἐπιχωριαζούσῃ.
- 234 παρὸ καὶ διχῶς τοῦ αὐτοῦ πράγματος λεγομένου πειρασόμεθα πρὸς τὰ παρόντα ἀρμολόμενοι πρόσωπα τὸ μὴ γελῶμενον προφέρεσθαι, ὁποῖόν ποτ' ἂν ᾖ κατὰ τὴν φύσιν. οἷον τὸ αὐτὸ ἀρτοφόριον καὶ πανάριον λέγεται, καὶ πάλιν τὸ αὐτὸ σταμνίον καὶ ἀμίδιον καὶ ἕγδις καὶ θυῖα. ἀλλὰ στοχαζόμενοι τοῦ καλῶς ἔχοντος καὶ σαφῶς καὶ τοῦ μὴ γελᾶσθαι ὑπὸ τῶν διακονούντων ἡμῖν παιδαρίων καὶ ἰδιωτῶν πανάριον ἐροῦμεν, καὶ εἰ βάρβαρόν ἐστιν, ἀλλ' οὐκ ἀρτοφορίδα, καὶ σταμνίον, ἀλλ'
- 235 οὐκ ἀμίδα, καὶ θυῖαν μᾶλλον ἢ ἕγδις. καὶ πάλιν ἐν διαλέξει ἀποβλέποντες πρὸς τοὺς παρόντας τὰς μὲν ἰδιωτικὰς λέξεις παραπέμψομεν, τὴν δὲ ἀστειότεραν καὶ φιλολόγον συνήθειαν μεταδιώσομεν· ὡς γὰρ ἢ φιλόλογος γελᾶται παρὰ τοῖς ἰδιώταις, οὕτως ἢ ἰδιωτικῇ παρὰ τοῖς φιλολόγοις. δεξιῶς οὖν ἐκάστη περιστάσει τὸ πρέπον ἀποδιδόντες δόξομεν ἀμέμπτως ἑλληνίζειν.
- 236 Ἄλλως τε, ἐπεὶ ἐγκαλοῦσιν ὡς ἀνωμάλῳ καὶ πολυειδεῖ τῇ συνηθείᾳ, καὶ ἡμεῖς ἀπὸ τῆς αὐτῆς ἀφορμῆς αὐτοῖς ἐγκαλέσομεν. εἰ γὰρ ἢ ἀναλογία ὁμοίου παράθεσις ἐστὶ, τὸ δὲ ὁμοῖον ἐκ τῆς συνηθείας, ἢ δὲ συνηθία ἀνωμαλὸς τε καὶ ἀστατος, δεήσει καὶ τὴν ἀναλογίαν μὴ ἔχειν ἐστῶτα παρα-
- 237 πηγμάτα. καὶ τοῦτο πάρεστι διδάσκειν ἐπὶ τῶν ὀνομάτων καὶ τῶν ῥημάτων καὶ μετοχῶν καὶ

ordinary folk which differs from one State or Nation to another. Hence, in philosophy we shall fall in with the 233 usage of the philosophers, and in medicine with that proper to that science, and in ordinary intercourse with that which is more usual, free from affectation, and native to the district. Consequently, when the 234 same object is indicated by two names we shall try to suit ourselves to the persons present by employing the name which they do not laugh at, whatever the object's natural name may be. For instance, the same object is called ἀρτοφόριον ("bread-basket") and πανάριον or again σταμνίον and ἀμίδιον ("chamber-pot"), or ἕγδις and θυῖα ("mortar"). But, aiming at propriety and clearness and the avoidance of ridicule from our serving lads and ordinary folk, we shall use the terms πανάριον (even if it is barbarous^a), not ἀρτοφορίς, and σταμνίον, not ἀμῖς, and θυῖα rather than ἕγδις. And 235 again, in serious discussion, having regard to the company present, we shall put aside commonplace phrases and pursue after a more refined and cultured manner of speech; for just as the cultured manner is ridiculed by ordinary folk, so is the ordinary manner by men of culture. Thus, by discreetly adapting our style to suit each occasion, we shall be held to be speaking Greek faultlessly.

Moreover, when they charge common usage with 236 being inconsistent and multiform, we too will make our charge against them on the same grounds. For if "analogy" is "the juxtaposition of the similar," and the similar is taken from common usage, while common usage is inconsistent and variable, it must follow that analogy, too, has no invariable rules. And 237 one can show this in the case of nouns and verbs and

^a i.e. Latin.

καθόλου τῶν ἄλλων ἀπάντων. οἶον ἐπὶ μὲν τῶν ὀνομάτων παρόσον τὰ κατὰ τὰς ὀρθὰς πτώσεις ἀνάλογα ὄντα καὶ ὅμοια, ταῦτα κατὰ τὰς πλαγίους ἀνομοίως τε καὶ οὐκ ἀναλόγως σχηματίζεται, οἶον Ἄρης Χάρης χάρτης—Ἄρεως Χάρητος χάρτου, καὶ Μέμνων Θέων λέων—Μέμνονος Θέωνος λέοντος, Σκόπας μέλας Ἄβας—Σκόπα μέλας Ἄβαντος. καὶ ἐπὶ τῶν ῥηματικῶν πολλὰ ὁμοίως κατὰ τὸν ἐνεστῶτα χρόνον λεγόμενα οὐκ ἀναλόγως ἐν τοῖς ἄλλοις χρόνοις σχηματίζεται, ἐνίων δὲ σύζυγαι τινές ἐκλελοίπασιν, οἶον ἀλλεῖ ἀρέσκει—ἠύληκεν ἀρήρεκεν. καὶ κτείνεται μὲν λέγεται, ἔκτανκε δὲ οὐ λέγεται· ἀλήλιπται μὲν εἴποι τις ἄν, ἠλειπται δὲ οὐκέτι. ἐπὶ δὲ τῶν μετοχῶν βοῶν σαρῶν νοῶν—βοῶντος σαροῦντος νοοῦντος, καὶ ἐπὶ τῶν προσηγοριῶν ἀναξ ἄβαξ—ἀνακτος ἄβακος, γραῦς ναῦς—γραός νηός. ὡσαύτως δὲ

239 καὶ ἐπὶ τῶν τοιούτων. ἄρχων γὰρ λέγεται καὶ ὀνοματικῶς καὶ ὁ τὴν ἀρχὴν διέπων· ἀλλ' Ἄρχωνος μὲν γίνεται κατὰ πλάγιον πτῶσιν τὸ ὀνοματικόν, ἄρχοντος δὲ τὸ μετοχικόν. καὶ κατὰ ὅμοιον τρόπον μένων θέων νέων μετοχικὰ ὄντα καὶ ὀνοματικὰ διαφερούσας λαμβάνει τὰς κλίσεις· Μένωνος μὲν γὰρ γίνεται τὸ ὀνοματικόν, μένοντος δὲ ἡ μετοχή, καὶ Θέωνος μὲν τὸ ὀνοματικόν, θέοντος δὲ ἡ

240 μετοχή ἐστίν. πλὴν ἐκ τούτων συμφανὲς ὡς τῆς συνηθείας ἀνωμάλου καθεστῶσης οὐχ ἔστηκε τὰ παραπήγματα τῆς ἀναλογίας, ἀλλ' ἀνάγκη ἀποστάντας αὐτῶν τοῖς κατὰ τὴν συνήθειαν σχηματισμοῖς προσέχειν, παρέντας τὸ ἀνάλογον.

participles and all the other forms without exception. For example, in the case of nouns, inasmuch as those which are analogous and similar in the nominative case are formed dissimilarly and not by analogy in the oblique cases,—for instance Ἄρης Χάρης χάρτης—Ἄρεως Χάρητος χάρτου, and Μέμνων Θέων λέων—Μέμνονος Θέωνος λέοντος, and Σκόπας μέλας Ἄβας—Σκόπα μέλας Ἄβαντος. And in the case of verbs, 238 many which are of similar formation in the present tense are not formed by analogy in the other tenses, and the conjugations of some are partly defective,—for instance, ἀλλεῖ ἀρέσκει—ἠύληκεν ἀρήρεκεν. And the form κτείνεται is used, but not ἔκτανκε, and one may say ἀλήλιπται, but not ἠλειπται. In the case of participles we find βοῶν σαρῶν νοῶν—βοῶντος σαροῦντος νοοῦντος: and in the case of substantives ἀναξ ἄβαξ—ἀνακτος ἄβακος, γραῦς ναῦς—γραός νηός. So too with similar cases. Thus, ἄρχων is used both as a 239 proper name and as meaning the holder of office, but the proper name becomes Ἄρχωνος in the genitive case, whereas the participial becomes ἄρχοντος. And in like manner μένων, θέων, νέων, which are participial and also proper nouns, take different declensions; for the proper noun becomes Μένωνος but the participial μένοντος, and the proper noun Θέωνος but the participial θέοντος. In short, it is evident from all this 240 that, as common usage is inconsistent, the rules of analogy are not fixed, but we must necessarily depart from them and hold by the forms used in common speech, forsaking analogy.

ΙΑ'.—ΠΕΡΙ ΕΤΥΜΟΛΟΓΙΑΣ

241 Τὰ δὲ αὐτὰ λεκτέον πρὸς αὐτοὺς καὶ ὅταν δι' ἐτυμολογίας κρίνειν θέλωσι τὸν ἑλληνισμόν. πάλιν γὰρ ἦτοι σύμφωνός ἐστι τῇ συνηθείᾳ ἢ ἐτυμολογία ἢ διάφωνος· καὶ εἰ μὲν σύμφωνος, παρέλκει, εἰ δὲ διάφωνος, οὐ χρηστέον αὐτῇ ὡς προσκοπὴν ἐμποιοῦση μᾶλλον τοῦ βαρβαρίζειν ἢ σολοικίζειν. καὶ καθόλου μετακτέον τὰς ὁμοίας ἀντιρρήσεις

242 ταῖς ἔμπροσθεν ἡμῖν ἀποδοθείσαις. ἰδιαίτερον δὲ ἐκεῖνο λεκτέον. τὸ ἐτυμολογία κρινόμενον ὄνομα ὅτι ἑλληνικόν ἐστιν, ἦτοι ἔτυμα πάντως ἔχειν ὀφείλει τὰ προηγούμενα αὐτοῦ ὀνόματα ἢ εἰς τινα τῶν φυσικῶς ἀναφωνηθέντων καταλήγειν. καὶ εἰ μὲν ἀπὸ ἐτύμων πάντων, κατὰ τοῦτο εἰς ἄπειρον τῆς ἐκπτώσεως γινομένης ἀναρχος ἔσται ἢ ἐτυμολογία, καὶ οὐκ εἰσόμεθα εἰ ἑλληνικόν ἐστι τὸ ἔσχατον λεγόμενον ὄνομα, ἀγνοοῦντες ποῖον ἦν

243 τὸ ἀπ' οὗ πρῶτον κατάγεται. οἶον εἰ ὁ λύχνος εἴρηται ἀπὸ τοῦ λύειν τὸ νύχλος, ὀφείλομεν μαθεῖν εἰ καὶ τὸ νύχλος ἀπὸ τίνος ἑλληνικοῦ εἴρηται, καὶ τούτο πάλιν ἀπ' ἄλλου· καὶ οὕτως εἰς ἄπειρον γινομένης τῆς ἀνόδου, καὶ ἀνευρέτου καθεστῶτος τοῦ πρῶτον ἀναφωνηθέντος ὀνόματος, συνακαταληπτεῖται καὶ τὸ εἰ ἑλληνικῶς ὁ λύχνος εἴρηται.

244 εἰ δὲ ἐπὶ τινα τῶν ἀνετύμως κειμένων ὀνομάτων καταλήγοι τὸ ἐτυμολογούμενον ὄνομα, ὃν τρόπον ἐκεῖνα τὰ εἰς ἃ κατέληξεν οὐ διότι ἔστιν ἔτυμα παραδεξόμεθα, ἀλλὰ διότι τέτριπται κατὰ τὴν συνήθειαν, οὕτω καὶ τὸ δι' ἐτυμολογίας κρινόμενον

CHAPTER XI.—CONCERNING ETYMOLOGY

We must also use the same arguments against them 241 when they propose to judge "hellenism" by "etymology." Once again, etymology either agrees or disagrees with common usage; and if it agrees it is superfluous, while if it disagrees one should not make use of it, as that would cause more offence than using barbarisms or solecisms. And in general one may transfer and apply counter-arguments similar to those already set forth. But this special objection should 242 be stated:—The word which is adjudged to be "hellenic" by etymology must either have the words which precede it as in all cases its *etyma* (or "true roots"), or be traced back to some word naturally pronounced. And if it is derived in all cases from *etyma*, since in this respect there is a regress *ad infinitum*, the etymology will be without a beginning, and we will not know whether the ultimate word is good Greek, seeing that we do not know the nature of the word from which it is first derived. Thus, if the 243 word λύχνος ("lamp") comes from λύειν τὸ νύχλος ("dissolving the darkness"), we ought to find out whether νύχλος comes from a Greek word, and this in turn from another; and as the regress thus goes on *ad infinitum* and the word first pronounced is indiscoverable therewith it is rendered impossible to ascertain whether λύχνος is a good Greek word. If, on the 244 other hand, the word of which the etymology is sought should be traced back to some words which are without *etyma* (or "roots"), just as we shall admit the words from which they are derived not because they are *etyma* but because they are current in common usage, so also we shall admit the word judged to be

παραδεξόμεθα οὐ διὰ τὴν ἐτυμολογίαν ἀλλὰ διὰ
 τὸ σὴνθες. οἶον προσκεφάλαιον ἀπὸ τοῦ τῆ
 κεφαλῆ προστίθεσθαι εἴρηται, ἢ δὲ κεφαλῆ καὶ
 τὸ πρὸς, ὃ ἔστι πρόθεσις, ἀνετύμως κέκληται.
 245 τοῖνυν ὡς ταῦτα χωρὶς ἐτυμολογίας πεπίστευται
 ὅτι ἔστιν ἐλληνικά, τῆς συνηθείας αὐτοῖς χρωμένης,
 οὕτω καὶ τὸ προσκεφάλαιον δίχα ἐτυμολογίας
 ἔσται πιστόν. ἄλλως τε ἐνίοτε τὸ αὐτὸ πρᾶγμα
 δυσὶν ὀνόμασι καλεῖται, τῷ μὲν ἐτυμολογίαν
 ἐπιδεχομένῳ τῷ δὲ ἀνετυμολογήτῳ, καὶ οὐ διὰ
 τοῦτο τὸ μὲν ἔτυμον λέγεται ἐλληνικὸν τὸ δὲ
 ἀνέτυμον βαρβαρικόν, ἀλλ' ὡς ἐκεῖνο ἐλληνικόν,
 246 οὕτω καὶ τοῦτο. οἶον τὸ ὑφ' ἡμῶν καλούμενον
 ὑποπόδιον Ἀθηναῖοι καὶ Κῶοι χελωνίδα καλοῦσιν·
 ἀλλ' ἔστι τὸ μὲν ὑποπόδιον ἔτυμον, ἢ δὲ χελωνίς
 ἀνέτυμον, καὶ οὐ διὰ τοῦτο οἱ μὲν Ἀθηναῖοι
 λέγονται βαρβαρίζειν ἡμεῖς δὲ ἐλληνίζειν, ἀλλ'
 247 ἀμφοτέρω ἐλληνίζειν. τοῖνυν ὡς ἐκεῖνοι διὰ τὴν
 συνηθειαν καὶ οὐ διὰ τὴν τοῦ ὀνόματος ἐτυμότητα
 λέγονται ἐλληνίζειν, οὕτω καὶ ἡμεῖς διὰ τὸ ἐν τῇ
 αὐτῶν συνηθείᾳ τετριμμένον ἔχειν τὸ τοιοῦτον
 ὄνομα καὶ οὐ διὰ τὴν τῆς ἐτυμολογίας πίστιν
 ἐλληνιοῦμεν.
 Ἄλλ' ὅτι μὲν τὸ τεχνικὸν μέρος τῆς γραμματικῆς
 ἀνυπόστατόν ἐστιν, αὐτάρκως ἐκ τῶν εἰρημένων
 δέδεικται· χωρῶμεν δὲ ἀκολουθῶς καὶ ἐπὶ τὸ
 ἱστορικόν.

Greek by etymology not because of its etymology
 but because it is commonly used. *προσκεφάλαιον*
 ("pillow"), for instance, is so named from being
 placed at the *κεφαλῆ* ("head"), but *κεφαλῆ*, and the
πρὸς ("at") which precedes, are words without
εἴματα ("roots"). So then, as these words are be- 245
 lieved to be good Greek apart from etymology,
 since they are used in common speech, so too *προσ-*
κεφάλαιον will be believed apart from etymology.—
 Again, the same object is sometimes called by two
 names, the one admitting of etymology, the other
 void of etymology, but neither is the *εἴμα* said to
 be good Greek for this reason nor the *non-εἴμα* said
 to be barbaric, but as the former is good Greek so also
 is the latter. For example, that which is called by us 246
ὑποπόδιον ("foot-stool") the Athenians and Coans
 call *χελωνίς*: but *ὑποπόδιον* is an *εἴμα*, whereas
χελωνίς is a *non-εἴμα*, yet the Athenians are not
 said on this account to be using a barbarism, and we
 to be speaking good Greek, but rather both are said
 to be speaking good Greek. Since, then, they are 247
 said to be speaking good Greek not because the word
 they employ is an *εἴμα* but because it is in common
 use, so too we shall be speaking good Greek because
 the word we employ is current in our own customary
 speech and not because of our trust in etymology.

That the technical section of the Art of Grammar is
 without foundation has been proved sufficiently by
 what has now been said. Let us proceed in the next
 place to deal with the "historical" section.

CHAPTER XII.—IS THE HISTORICAL PART
 CONSISTENT ?

Now it is evident that "history" is regarded as 248

IB'.—ΕΙ ΣΥΣΤΑΤΟΝ ΤΟ ΙΣΤΟΡΙΚΟΝ

248 Ὅτι μὲν οὖν ἀξιοῦται τοῦτο ὀλοσχερῶς εἶναι
 138

μέρος γραμματικῆς, συμφανές. Ταυρίσκος γοῦν ὁ Κράτητος ἀκουστής, ὡσπερ οἱ ἄλλοι κριτικοί, ὑποτάσσων τῇ κριτικῇ τὴν γραμματικὴν, φησὶ τῆς κριτικῆς εἶναι τὸ μὲν τι λογικὸν τὸ δὲ τριβικόν 249 τὸ δ' ἱστορικόν, λογικὸν μὲν τὸ στρεφόμενον περὶ τὴν λέξιν καὶ τοὺς γραμματικοὺς τρόπους, τριβικόν δὲ τὸ περὶ τὰς διαλέκτους καὶ τὰς διαφορὰς τῶν πλασμάτων καὶ χαρακτήρων, ἱστορικόν δὲ τὸ περὶ 250 τὴν προχειρότητα τῆς ἀμεθόδου ὕλης. Διονύσιος δὲ ὁ Θράξ ἔξ μέρη γραμματικῆς εἶναι λέγων, ἅπερ ἡμεῖς ἀνώτερον ὀλοσχερῶς τρία προσηγορεύσαμεν, ἐν τούτοις καὶ τὸ ἱστορικὸν ἀποδίδωσιν εἶναι γάρ φησι γραμματικῆς μέρη ἀνάγνωσιν ἐντριβῆ κατὰ προσωδίαν, ἐξήγησιν κατὰ τοὺς ἐννύπάρχοντας ποιητικοὺς τρόπους, λέξεων καὶ ἱστοριῶν ἀπόδοσιν, ἐτυμολογίας εὔρεσιν, ἀναλογίας ἐκλογισμὸν, κρίσιν ποιημάτων, ἀτόπως διαιρούμενος καὶ τάχα μὲν ἀποτελέσματα τινα καὶ μόρια γραμματικῆς [οὐ] μέρη ταύτης ποιῶν, 251 ὁμολόγως δὲ τὴν μὲν ἐντριβῆ ἀνάγνωσιν καὶ τὴν ἐξήγησιν καὶ τὴν κρίσιν τῶν ποιημάτων ἐκ τῆς περὶ ποιητῆς καὶ συγγραφῆς θεωρίας λαμβάνων, τὴν δὲ ἐτυμολογίαν καὶ ἀναλογίαν ἐκ τοῦ τεχνικοῦ, τοῖς δὲ τὸ ἱστορικὸν ἀντεκτιθεῖς, ἐν ἱστοριῶν 252 καὶ λέξεων ἀποδόσει κείμενον. Ἀσκληπιάδης δὲ ἐν τῷ περὶ γραμματικῆς τρία φήσας εἶναι τὰ πρῶτα τῆς γραμματικῆς μέρη, τεχνικὸν ἱστορικὸν γραμματικόν, ὅπερ ἀμφοτέρων ἐφάπτεται, φημὶ δὲ τοῦ ἱστορικοῦ καὶ τοῦ τεχνικοῦ, τριχῇ ὑποδιαιρεῖται τὸ ἱστορικόν. τῆς γὰρ ἱστορίας τὴν μὲν τινα ἀληθῆ εἶναι φησι τὴν δὲ ψευδῆ τὴν δὲ ὡς ἀληθῆ, καὶ ἀληθῆ μὲν τὴν πρακτικὴν, ψευδῆ δὲ

entirely a division of the Art of Grammar. Tauriscus, at least, the disciple of Crates, like the other critics, in subordinating grammar to criticism, declares that of the critical art one part is literary, another practical, and another historical; that which deals with 249 language and the grammatical tropes is literary, that concerned with dialects and the distinctions of formations and characters is practical, and that which treats of readiness in handling unarranged material is historical. And Dionysius the Thracian, in asserting 250 that there are six parts of grammar,—which we have described above * as three in all,—includes amongst them the historical; for he says that “the parts of grammar are skilled reading according to the scansion, explanation concerning the tropes which the poems contain, exposition of the phrases and histories, the discovery of etymologies, the reckoning of analogy, the judging of compositions,”—thus making absurd divisions and perhaps making out to be parts of grammar what are only certain results and particles of it, and avowedly taking away from the art which treats 251 of poets and composers the skilled reading and the explanation and the judgement of their compositions, and from the technical part etymology and analogy, in opposition to which he sets the historical part which consists of the exposition of phrases and histories. And Asclepiades, after stating in his treatise on 252 grammar that the primary parts of grammar are three, the technical, the historical and the grammatical (which has contact with both, I mean with the historical and the technical), subdivides the historical into three; for he says that “of history one division is true, one false, one as if true: the factual is true,

* Cf. § 91.

τὴν περὶ πλάσματα καὶ μύθους, ὡς ἀληθῆ δὲ οἶα
 253 ἔστιν ἢ κωμῳδία καὶ οἱ μίμοι. τῆς δὲ ἀληθοῦς
 τρία πάλιν μέρη· ἢ μὲν γὰρ ἔστι περὶ τὰ πρόσωπα
 θεῶν καὶ ἡρώων καὶ ἀνδρῶν ἐπιφανῶν, ἢ δὲ περὶ
 τοὺς τόπους καὶ χρόνους, ἢ δὲ περὶ τὰς πράξεις.
 τῆς δὲ ψευδοῦς, ταυτέστι τῆς μυθικῆς, ἐν εἶδος
 μόνον ὑπάρχειν λέγει τὸ γενεαλογικόν. ὑπο-
 τάσσεσθαι δὲ τῷ ἱστορικῷ κοινῶς φησί, καθὼς
 καὶ Διονύσιος, τὸ περὶ τὰς γλώττας· ἱστορεῖ γὰρ
 ὅτι κρήγυον ἀληθές ἐστιν ἢ ἀγαθόν. ὡσαύτως
 δὲ καὶ τὸ περὶ παροιμιῶν καὶ ὄρων.

Ἄλλ' ὅτι μὲν γραμματικῆς εἶναι μέρος βού-
 λονται τὸ ἱστορικόν, ἐκ τούτων ἔστι συμφανές·
 254 λοιπὸν δέ, ἐπεὶ οἱ πλείους ὠμολογήκασιν αὐτὸ
 ἄτεχνον εἶναι καὶ ἐκ τῆς ἀμεθόδου ὕλης τυγχάνειν,
 ἀπολελύκασιν μὲν ἡμᾶς τῆς ἐπὶ πλείον πρὸς αὐτοὺς
 ἀντιρρήσεως, ὅμως δ' οὖν ὑπὲρ τοῦ μὴ ἀνεπισή-
 μαντον παρελθεῖν τὸν τόπον οὕτως ἐρωτητέον.
 ἥτοι τέχνη ἐστὶν ἢ γραμματικῆ ἢ οὐκ ἔστι τέχνη.
 καὶ εἰ μὲν οὐκ ἔστιν, αὐτόθεν συμβεβίβασται τὸ
 προκείμενον· εἰ δὲ τέχνη ἐστίν, ἐπεὶ τὰ τῆς τέχνης
 μέρη πάντως ἔστι τεχνικά, τὸ δ' ἱστορικόν ἀμέ-
 255 γραμματικῆς μέρος τὸ ἱστορικόν. καὶ ὅτι τῷ
 ὄντι τοιοῦτόν ἐστιν, αὐτόθεν σχεδὸν ὑπέπιπτεν.
 οὐ γὰρ ὡσπερ ἀπὸ καθολικῆς τινὸς μεθόδου καὶ
 τεχνικῆς δυνάμεως λέγει ὁ μὲν ἰατρός ὅτι τόδε
 τὸ ἐπὶ μέρους ὑγιεινόν ἐστι καὶ τόδε νοσερόν, ὁ
 δὲ μουσικός ὅτι τόδε ἡρμωσμένον καὶ τόδε ἀνάρμο-
 στον, καὶ ἡρμωσμένον μὲν κατὰ τήνδε τὴν συμφω-
 νίαν ἀλλ' οὐχὶ κατὰ τήνδε, οὕτω καὶ ὁ γραμματικὸς

that of fictions and legends is false, and as if true are
 such forms as comedy and mimes." And of true 253
 history, again, there are three parts : one sort is that
 about the persons of gods and heroes and notable
 men, another about places and times, the third about
 actions. And of false history (that is, the legendary)
 there is, he says, one kind only, the genealogical.
 And he says, like Dionysius, that the section dealing
 with "glosses" (rare or obsolete words) commonly
 comes under the head of the historical part ; for
 it reports that κρήγυον " means " true " or " good."
 And so too the section about proverbs and definitions.

From all this it is plain that they wish the " historical"
 to be a part of the Art of Grammar. Moreover, 254
 since the majority of them have agreed that it is non-
 technical and consists of unmethodical matter, they
 have relieved us from having to argue further against
 them ; notwithstanding, in order not to pass over the
 topic and leave it unnoticed, we must argue with
 them in this wise :—Grammar either is or is not an
 art. And if it is not an art, the question before
 us is settled of itself. But if it is an art, since the
 parts of an art must certainly be technical, and it
 is agreed that the historical part is without method,
 the historical will not be a part of the Art of
 Grammar. And it is almost self-evident that this 255
 is really so. For whereas, arguing from a general
 method and a technical faculty, the physician pro-
 nounces that this particular thing is healthy, this
 other diseased, and the musician that this is in
 harmony and that out of harmony,—in harmony
 because of this note, out of harmony because of that
 note,—it is not so with the Grammarian : he cannot

• Cf. Hom. *Il.* i. 106.

δύναται ἀπὸ ἐπιστημονικῆς τινὸς καὶ καθολικῆς θεωρίας ἀπαγγέλλειν ὅτι ὁ μὲν Πέλοπος ὤμος ἐλεφάντινος ἦν ὑπὸ τοῦ Ἄρεως ἢ ὑπὸ Δήμητρος βρωθεῖς, ἢ δὲ τοῦ Ἑρακλέους κεφαλὴ ἐψέδνωτο ρυεισῶν αὐτοῦ τῶν τριχῶν ὅτε ὑπὸ τοῦ ἐφορμῶντος 256 τῆ Ἡσιόνη κήτους κατεπόθη, ἀλλ' ἵνα τούτων ποιήσῃται τὴν ἔκθεσιν, ὀφείλει πᾶσι τοῖς κατὰ μέρος ἱστοροῦσι περὶ αὐτῶν ἐντυχεῖν. τὸ δὲ πάντων τῶν κατὰ μέρος ποιεῖσθαι τὴν ἀνάληψιν αὐτοῖς ἐντυγχάνοντα τοῖς κατὰ μέρος οὐκ ἔστι τεχνικόν. οὐκ ἄρα ἔκ τέχνης τινὸς μεθοδεύεται 257 τοῖς γραμματικοῖς τὸ ἱστορικόν. καὶ μὴν ἐπεὶ τῆς ἱστορίας ἢ μὲν τίς ἐστὶ τοπικὴ ἢ δὲ χρονικὴ ἢ δὲ περὶ τὰ πρόσωπα ἢ δὲ περὶ τὰς πράξεις, δῆλον ὡς εἰ μὴ τεχνικὴ ἐστὶν ἢ τῶν τόπων καὶ ἢ τῶν χρόνων ἀπόδοσις, οὐθ' ἢ τῶν προσώπων οὐθ' ἢ τῶν πράξεων τεχνικὴ γενήσεται. τί γὰρ διήνεγκε τούτων ἢ ἐκείνων ἀποκρατεῖν; ἀλλὰ μὴν οὐδὲν ἔχει τεχνικόν τὸ ἀποδιδόναι τοπικὴν ἱστορίαν, λέγοντας ὅτι, εἰ τύχοι, Βριλησὸς μὲν καὶ Ἀράκυνθος τῆς Ἀττικῆς ἐστὶν ὄρος, Ἀκάμας δὲ τῆς Κυπρίας ἀκρωτήριον, ἢ χρονικὴν ἐκτίθεσθαι, καθάπερ ὅτι Ξενοφάνης Κολοφώνιος ἐγένετο περὶ τὴν τεσσαρακοστὴν Ὀλυμπιάδα. τοῦτο γὰρ καὶ ὁ μὴ ὢν γραμματικὸς ἄλλως δὲ περίεργος 258 δυνήσεται ποιεῖν. τοίνυν οὐδὲ τὸ περὶ προσώπων καὶ πράξεων ἀπαγγέλλειν τεχνικόν γενήσεται, οἶον ὅτι Πλάτων μὲν ὁ φιλόσοφος Ἀριστοκλῆς πρότερον ἐκαλεῖτο καὶ ἐτέτρητο τὸ οὖς ἐλλόβιον

declare, on the ground of any scientific and general consideration, that the shoulder of Pelops, after it was devoured by Ares or by Demeter, was of ivory and that Heracles' head became bald as his hair fell off when he was swallowed by the sea-monster which was attacking Hesione,^a but in order that he may 256 record these events he must have met with all the particular historians of these events. But to repeat all the particular events by meeting the particular historians is not a technical method. Therefore the historical part is not methodically derived by the Grammarians from any art. Moreover, since one 257 kind of history deals with places, another with times, another with persons and another with actions, it is plain that if the exposition of places and times is not technical, neither will that of persons and actions be technical; for what difference is there to make you prefer these rather than those? But, in fact, there is nothing technical about recounting a "history" of a place, as when we assert (shall we say?) that Brilesus, and Aracynthus too, is a mountain of Attica, and Acamas a headland of Cyprus; or about a statement of time, as that Xenophanes of Colophon was born in the fortieth Olympiad.^b For even the man who is no Grammarian but otherwise occupied will be able to do this. Neither, then, will the making announce- 258 ments about persons and actions be technical, as for instance that Plato the philosopher was first called Aristocles and that, when a youth, he had an ear

^a The story is that Heracles, in rescuing Hesione, spent three days (like Jonah) in the monster's belly, hacking it to pieces.

^b i.e. 620 B.C., but as this date is too early, we ought perhaps to read πενητηκοστὴν, "fiftieth" (i.e. N' for M'); cf. Diog. Laert. ix. 20.

φορήσας ὅτ' ἦν μεираκίσκος, Πυθιάς δὲ ἡ Ἀριστοτέλους θυγάτηρ τρισὶν ἀνδράσιν ἐγαμήθη, πρῶτον μὲν Νικάνορι τῷ Σταγειριτῇ, οἰκείῳ ὄντι Ἀριστοτέλους, δευτέρῳ δὲ Προκλεῖ Δημαράτου τοῦ Λακεδαιμονίων βασιλέως ἀπογόνῳ, ὃς καὶ δύο ἐξ αὐτῆς τεκνοῦται παῖδας, Προκλέα τε καὶ Δημάρατον τοὺς παρὰ Θεοφράστῳ φιλοσοφῆσαντας, τρίτῳ δὲ Μητροδώρῳ ἱατρῷ, Χρυσίππου μὲν τοῦ Κνιδίου μαθητῇ Ἐρασιστράτου δὲ ὑφηγητῇ, ᾧ 259 γίνεται παῖς Ἀριστοτέλης. ταῦτα γὰρ καὶ τὰ τούτοις ὅμοια πρὸς τῷ τελέως ἀχρηστεῖν ἔτι οὐδεμίαν ἐμφαίνει τεχνικὴν δύναμιν, ὥστε οὐδὲ ἡ τῶν ἱστοριῶν¹ ἀπόδοσις ἐστὶν ἐντεχνος. ἄλλως τε καθὼς² ἀνώτερον ὑπεδείξαμεν, οὔτε τῶν ἀπείρων οὔτε τῶν ἄλλοτε ἄλλως γινομένων ἔστι 260 τις τεχνικὴ γνῶσις. αἱ δὲ γε κατὰ μέρος ἱστορίαι ἀπειροί τε διὰ τὸ πλήθός εἰσι, καὶ οὐχ ἐστώσαι διὰ τὸ μὴ τὰ αὐτὰ περὶ τοῦ αὐτοῦ παρὰ πᾶσιν ἱστορεῖσθαι. οἷον (οὐκ ἄτοπον γὰρ ἵνα συμφυέσι τε καὶ οἰκείοις χρῆσώμεθα τῶν πραγμάτων παραδείγμασιν) ὑπόθεσιν γὰρ ἑαυτοῖς ψευδῆ λαμβάνοντες οἱ ἱστορικοὶ τὸν ἀρχηγὸν ἡμῶν τῆς ἐπιστήμης Ἀσκληπιὸν κεκεραυνῶσθαι λέγουσιν, οὐκ ἀρκούμενοι τῷ ψεύσματι, ἐν ᾧ καὶ ποικίλως αὐτὸ 261 μεταπλάττουσι, Στησίχορος μὲν ἐν Ἐριφύλῃ εἰπὼν ὅτι τινὰς τῶν ἐπὶ Θήβαις πεσόντων ἀνιστᾷ, Πολύανθος δὲ ὁ Κυρηναῖος ἐν τῷ περὶ τῆς Ἀσκληπιδῶν γενέσεως ὅτι τὰς Προΐτου θυγατέρας

pierced and wore an earring, and that Pythias, the daughter of Aristotle, was married to three men, first to Nicanor of Stageira, a connexion of Aristotle, secondly to Procleus, a descendant of Damaratus the Lacedaemonians' king (who had by her two sons, the Procleus and Damaratus who studied philosophy with Theophrastus), and thirdly to Metrodorus the physician, a disciple of Chrysippus^a of Cnidos and teacher of Erasistratus, whose son was Aristotle.^b For these 259 stories and those like them, besides being perfectly useless, evince no technical faculty, so that the recital of histories too is void of art.—Furthermore, as we have shown above, there is no technical knowledge either of things infinite or of things which vary from hour to hour. But particular histories are both in- 260 finite, because of their great number, and without fixity, because the same facts are not recorded by all respecting the same person. For instance (for it is not out of place to use familiar and appropriate examples of the facts), the historians adopting a false assumption say that Asclepius, the founder of our science, was struck by lightning,^c and not content with this falsehood they invent many variations of it,—Stesichorus^d saying in *Eriphylē* that it was be- 261 cause he had raised up some of the men who had fallen at Thebes,—Polyanthus of Cyrenē, in his work on the origin of the Asclepiades, that it was because he had cured the daughters of Proetus who had

^a A physician, *circ.* 350 B.C.,—not the famous Stoic philosopher.

^b *i.e.* Aristotle junior, called after his grandfather.

^c Cf. Virgil, *Aen.* vii. 770 ff. Sextus, as a medical man, calls Asclepius "the founder of our Science."

^d Stesichorus was a famous lyric poet of Sicily, *circ.* 580 B.C.

¹ ἱστοριῶν *cj.* Bekk. : ἱστορικῶν *mss.*, Bekk.

² καθὼς *cj.* Bekk. : καὶ ὡς *mss.*, Bekk.

κατὰ χόλον Ἡρας ἐμμανεῖς γενομένης ἰάσατο, Πανύσις δὲ διὰ τὸ νεκρὸν Τυνδάρειω ἀναστήσαι, Στάφυλος δὲ ἐν τῷ περὶ Ἀρκάδων ὅτι Ἱππόλυτον ἐθεράπευσε φεύγοντα ἐκ Τροειζῆνος κατὰ τὰς παραδεδομένας κατ' αὐτοῦ ἐν τοῖς τραγωδουμένοις
 262 φήμας, Φύλαρχος δὲ ἐν τῇ ἐννάτῃ διὰ τὸ τοὺς Φινεὺς υἱοὺς τυφλωθέντας ἀποκαταστήσαι, χαριζόμενον αὐτῶν τῇ μητρὶ Κλεοπάτρῃ τῇ Ἐρεχθέως, Τελέσαρχος δὲ ἐν τῷ Ἀργολικῷ ὅτι τὸν Ὀρίωνα ἐπεβάλετο ἀναστήσαι. οὐ τοίνυν τῆς οὕτως ἀπὸ ψευδοῦς ὑποθέσεως ἀρχομένης καὶ ἀδιεξίτητου κατὰ πλῆθος καὶ πρὸς τὴν ἐκάστου προαίρεσιν μεταπλαττομένης γένουτ' ἂν τις τεχνικὴ θεωρία.
 263 Πρὸς τοῦτοις ἐπεὶ τῶν ἱστορουμένων τὸ μὲν ἔστιν ἱστορία τὸ δὲ μῦθος τὸ δὲ πλάσμα, ὧν ἡ μὲν ἱστορία ἀληθῶν τινῶν ἔστι καὶ γεγονότων ἔκθεσις, ὡς ὅτι Ἀλέξανδρος ἐν Βαβυλῶνι δι' ἐπιβούλων φαρμακευθεὶς ἐτελεύτα, πλάσμα δὲ πραγμάτων μὴ γενομένων μὲν ὁμοίως δὲ τοῖς γενομένοις λεγομένων, ὡς αἱ κωμικαὶ ὑποθέσεις καὶ οἱ μῖμοι,
 264 μῦθος δὲ πραγμάτων ἀγενήτων καὶ ψευδῶν ἔκθεσις, ὡς ὅτι τὸ μὲν τῶν φαλαγγίων καὶ ὄφειων γένος Τιτῆνων ἐπέπουσιν ἀφ' αἵματος ἐζωγονήσθαι, τὸν δὲ Πήγασον λαίμοτομηθείσης τῆς Γοργόνος ἀπὸ τῆς κεφαλῆς ἐκθορεῖν, καὶ οἱ μὲν Διομήδους ἐταῖροι εἰς θαλασσίους μετέβαλον ὄρνις, ὁ δὲ
 265 Ὀδυσσεὺς εἰς ἵππον, ἡ δὲ Ἐκάβη εἰς κύνᾳ,—τοι-
 αῦτης δὲ οὐσης τῶν ἱστοριῶν διαφορᾶς, ἐπεὶ οὐκ ἔστι τέχνη τις περὶ τὰ ψευδῆ καὶ ἀνύπαρκτα,

^a An epic poet, of Halicarnassus, *circa* 480 B.C.

^b A Boeotian hunter, slain by Artemis; and placed, after death, among the stars.

become mad owing to the wrath of Hera,—Panyasis,^a that it was owing to his raising up the dead body of Tyndareôs,—Staphylus, in his book about the Arcadians, that it was because he had healed Hippolytus when he was fleeing from Troezen, according to the reports handed down about him in the tragedies, —Phylarchus, in his ninth book, that it was because
 262 he restored their sight to the blinded sons of Phineus, as a favour to their mother Cleopatra, the daughter of Erechtheus,—Telesarchus in his *Argolicum*, that it was because he set himself to raise up Orion.^b Thus, of an assumption which begins with a falsehood and is so multiform that it cannot be checked, and changes its shape at each man's fancy, there can be no technical treatment.

Moreover, since of the subjects of history one part
 263 is history, another legend, another fiction,—and of these history is the recording of certain things which are true and have happened, as that Alexander died at Babylon through having been poisoned by plotters; and fiction is the narrating things which are not real events but are similar to real events in the telling, such as the hypothetical situations in comedies and mimes; and legend is the narrating of events which
 264 have never happened and are false, like the story that the species of venomous spiders and snakes were born alive from the blood of the Titans, and that Pegasus sprang from the head of the Gorgon when her throat was cut,^c and that the companions of Diomedes were changed into sea-birds, Odysseus into a horse, and Hecuba into a dog,—such then being
 265 the variety in histories, since there exists no art which deals with things false and unreal, and the

^c Cf. Hesiod, *Theog.* 280.

ψευδῆ δέ ἐστι καὶ ἀνύπαρκτα τὰ περὶ τοὺς μύθους
καὶ τὰ πλάσματα, περὶ ἃ μάλιστα τοῦ ἱστορικοῦ
μέρους ἢ γραμματικῆ καταγίνεται, οὐκ ἂν εἴη
τις τέχνη περὶ τὸ ἱστορικὸν μέρος τῆς γραμμα-
266 τικῆς. ὅθεν καταγελᾷ ἀξιὸν τῶν λεγόντων ὅτι
εἰ καὶ ἡ ὕλη τῆς ἱστορίας ἐστὶν ἀμέθοδος, ἢ μέντοι
κρίσις ταύτης γενήσεται τεχνικῆ, δι' ἧς γινώσκουμεν
267 τί τε ψευδῶς ἱστορήται καὶ τί ἀληθῶς. πρῶτον
μὲν γὰρ οὐ παραδεδώκασι ἡμῖν οἱ γραμματικοὶ
τῆς ἀληθοῦς ἱστορίας κριτήριον, ἵνα καὶ ἐξετά-
ζωμεν πότε ἀληθῆς ἐστὶν αὕτη καὶ πότε ψευδῆς.
εἶτα καὶ μηδεμίαν οὐσίαν ἀληθοῦς ἱστορίας παρὰ
τοῖς γραμματικοῖς οὐδὲ τὸ τοῦ ἀληθοῦς κριτήριον
ὑποστατὸν ἐστίν, ἐπεὶ πῶς οὐκ ἔργον, τινὸς μὲν
λέγοντος ὅτι Ὀδυσσεὺς ὑπὸ Τηλεγόνου παιδὸς
κατὰ ἀγνοίαν ἀνήρηται, τινὸς δὲ ὅτι λάρου κέντρον
θαλασσίας τρυγόνος ἀφέντος αὐτοῦ τῇ κεφαλῇ
διεφώνησεν, ἄλλου δὲ ὅτι εἰς ἵππον μετέβαλε τὴν
μορφήν, θέλει ἐν οὕτως ἀπερρωγόσι πράγμασι
εὐρεῖν τὰληθές; πρότερον γὰρ δεῖ ὑποστήναι ἐν
τοῖς διαφωνοῦσι τὸν ἀληθεύοντα, καὶ τότε ζητεῖν
268 τί ἐστὶν πάντων δὲ ἀπίθανα καὶ ψευδῆ λεγόντων
οὐδὲ τεχνικῶ τινὶ κριτηρίῳ δίδοται πάροδος.

Καὶ μὴν οὐδὲ δι' ὧν ἂν ἱστορία καλῶς γραφείη
διδάσκουσιν οἱ γραμματικοὶ, ἵνα κατ' ἀναφορὰν
τὴν ὡς ἐπὶ τὰ τοιαῦτα θεωρήματα λέγωμεν
τεχνικὸν τι μέρος ὑπάρχειν παρ' αὐτοῖς τὸ ἱστο-
269 ρικόν· τοῦτο γὰρ ῥητορικῶν ἐστὶ τὸ ἔργον. ὥστε
εἰ καὶ αὐτοὶ ἐξομολογούνται ἀμέθοδόν τι εἶναι
παράπηγμα τὴν ἱστορίαν καὶ ἡμεῖς ἐπελογισάμεθα,
καὶ ἄλλως οὐδὲν τεχνικὸν θεώρημα πρὸς τὴν
γνώσιν αὐτῆς ἢ σύστασιν παραδεδώκασι, ῥητέον

legends and fictions, which form the main subjects of
the historical part with which grammar is concerned,
are false and unreal, it will follow that there exists no
art which deals with the historical part of grammar.
Hence they deserve to be laughed at who assert that 266
even if the subject-matter of history lacks method,
yet the judging of it will be a matter of art, by means
of which we ascertain what is falsely related and
what truly. For, firstly, the Grammarians have not 267
furnished us with a criterion of true history, so that
we might determine when it is true and when false.
In the next place, as the Grammarians have no history
that is true, the criterion of truth is also non-existent;
for when one man says that Odysseus was killed in
ignorance by his son Telegonus,^a and another that he
breathed his last when a sea-gull^b dropped on his
head the spike of a roach, and yet another that he was
transformed into a horse, surely it is a hard task to
try to discover the truth in such incoherent accounts.
For we must establish first which of these dissentient
narrators is telling the truth, and then inquire as to
the facts; but when all relate what is improb- 268
able and false no opening is given for a technical
criterion.

Nor yet do the Grammarians instruct us as to how
history should rightly be written, so that by a refer-
ence to such rules we might declare that with them
the historical part is a technical one; for this is the
task of the Rhetoricians. So that, if even they them- 269
selves confess that history is a chronicle without
method and we have confirmed this by logic, and if,
moreover, they have provided no technical rule for
understanding or constructing it, we must declare

^a His son by Circè.

^b Cf. Hom. *Od.* xi. 134.

καὶ κατὰ τὸ ἱστορικὸν μέρος ἀσύστατον εἶναι τὴν γραμματικὴν.

ΙΓ'.—ΤΟ ΠΕΡΙ ΤΟΥΣ ΠΟΙΗΤΑΣ ΜΕΡΟΣ

270 "Ἦδη μὲν δυνάμει καὶ τὸ περὶ ποιητὰς καὶ συγγραφεῖς μέρος τῆς γραμματικῆς ἡμῶν ἀνήρηται, δείξασι τὸ ἀδύνατον τοῦ κατὰ τὰς τεχνολογίας καὶ τοῦ ἱστορικοῦ¹. χωρὶς γὰρ τούτων οὐκ ἀπευθύνεται τις ποιήσεως ἐξήγησις. ὅμως δ' οὖν καὶ τὰ ἐν τούτῳ τῷ μέρει πειρασόμεθα κοινότερον δυνάμενα λέγεσθαι σκοπεῖν, καὶ μάλιστα ὅτι οὕτως ἐπιθεαρρήκασιν αὐτῷ οἱ γραμματικοὶ ὡς καὶ τὸ βιωφελές τῆς γραμματικῆς καὶ πρὸς εὐδαιμονίαν ἀναγκαῖον ἐξ αὐτοῦ τολμᾶν πιστοῦσθαι. φασὶ γοῦν ὡς ἡ ποιητικὴ πολλὰς δίδωσιν ἀφορμὰς πρὸς σοφίαν καὶ εὐδαιμόνα βίον, ἀνευ δὲ τοῦ ἀπὸ γραμματικῆς φωτὸς οὐχ οἶόν τε τὰ παρὰ τοῖς ποιηταῖς διοραῶν ὁποῖά ποτε ἐστίν· χρειώδης ἄρα ἡ γραμματικὴ. τὸ δ' ὅτι συχνὰς δίδωσιν ἡ ποιητικὴ ἀφορμὰς πρὸς εὐδαιμονίαν δῆλον ἐκ τοῦ τὴν ὄντως κρατίστην καὶ ἠθοποιὸν φιλοσοφίαν ἀπὸ τῆς παρὰ τοῖς ποιηταῖς γνωμολογίας τὴν ἀρχὴν ἐρριζώσθαι, καὶ διὰ τοῦτο τοὺς φιλοσόφους, εἴ ποτε παραινετικῶς τι λέγοιεν, ταῖς ποιητικαῖς φωναῖς ὡςπερὶ σφραγίζεσθαι τὸ ὑπ' αὐτῶν λεγόμενον. καὶ ὁ μὲν ἐπ' ἀρετὴν παρακαλῶν φησὶν

ἀρετὴ δὲ κἂν θάνη τις οὐκ ἀπόλλυται·

ὁ δὲ φιλαργυρίαν φεύγειν ἐγκελευόμενος προφέρειται τὸ

μὴ Πλοῦτον εἶπης· οὐχὶ θαυμάζω θεὸν
ὄν χῶ κάκιτος ῥαδίως ἐκτήσατο·

¹ τοῦ ἱστορικοῦ scripsi: τὸ ἱστορικὸν MSS., Bekk.

that as regards its historical part also the Art of Grammar is without foundation.

CHAPTER XIII.—THE PART DEALING WITH WRITERS

The part of Grammar which deals with poets and 270 prose-writers we have virtually abolished already by showing the impossibility of the technological part and of the historical; for without these no exposition of composition can proceed rightly. Nevertheless, we shall endeavour to examine also what can be said in a general way of this part, especially because the Grammarians are so confident about it that they dare to prove from it the practical usefulness of grammar and its necessity for happiness. They assert, at least, that poetry furnishes many aids to wisdom and a happy life, but without the light of grammar it is not possible to discern clearly what the poets' sayings really mean; therefore grammar is useful. And that 271 poetry furnishes many aids to happiness is plain from the fact that the best and character-forming philosophy had its original roots in the gnomic sayings of the poets, and on this account the philosophers, when giving exhortations, always stamped, as it were, their injunctions with phrases from the poets. Thus one of them, in exhorting to virtue, says—

Yet virtue doth not perish though one die.^a

And another, enjoining us to flee covetousness, proclaims—

Speak not of Wealth: I honour not a god
Whom e'en the basest makes his own with ease.^b

^a Cf. Eurip. *Temen.* (Frag. 734 Nauck).

^b Cf. Eurip. *Aeolus* (Frag. 20 Nauck).

ὁ δὲ αὐτάρκειαν ὑπαγορεύων συμπιστοῦται τὸ δόγμα ἐκ τοῦ τὸν Εὐριπίδην λέγειν

τί γὰρ δέει βροτοῖσι πλὴν δυοῖν μόνον,
Δήμητρος ἀκτῆς πώματός θ' ὕδρηχόου,
ἃ δὴ πάρεστι καὶ πέφυχ' ἡμᾶς τρέφειν;

272 καὶ τὸ μὲν τοὺς ἄλλους φιλοσόφους τοῦτο ποιεῖν οὐ παράδοξον, αὐτοὺς δὲ εὐρήσομεν τοὺς τῆς γραμματικῆς κατηγορούς, Πύρρωνά τε καὶ Ἐπίκουρον, ἐξομολογουμένους τὸ ἀναγκαῖον αὐτῆς· ὧν ὁ μὲν Πύρρων ἱστορεῖται τὴν Ὀμηρικὴν διὰ παντός ποιήσιν ἀναγινώσκων, μὴ ἂν ποτε τοῦτο ποιήσας εἶπερ μὴ ἐγίνωσκεν αὐτὴν χρησίμην καὶ 273 διὰ τοῦτο τὴν γραμματικὴν ἀναγκαίαν, ὁ δὲ Ἐπίκουρος φωρᾶται τὰ κράτιστα τῶν δογμάτων παρὰ ποιητῶν ἀνηρπακώς. τὸν τε γὰρ ὄρον τοῦ μεγέθους τῶν ἡδονῶν, ὅτι ἡ παντός ἐστι τοῦ ἀλγοῦντος ὑπεξαίρεσις, ἐξ ἑνὸς στίχου δέδεικται λαβῶν,

αὐτὰρ ἐπεὶ πόσιος καὶ ἐδητύος ἐξ ἔρον ἔντο·

τόν τε θάνατον, ὅτι οὐδέν ἐστι πρὸς ἡμᾶς, Ἐπίχαρμος αὐτῷ προμεμήνηκεν, εἰπὼν

ἀποθανεῖν ἢ τεθνᾶναι οὐ μοι διαφέρει.

ὡσαύτως δὲ καὶ τὰ νεκρὰ τῶν σωμάτων ἀναισθητεῖν παρ' Ὀμήρου κέκλοφε, γράφοντος

κωφήν γὰρ δὴ γαῖαν ἀεικίζει μενεαίνων.

274 καὶ μὴν οὐ ταῦτα μόνον τοῖς ποιηταῖς δεξιῶς εἰρησθαι φαίνεται ἀλλὰ καὶ τὰ περὶ θεῶν, οἷόν ἐστι καὶ 154

And another, in recommending self-sufficiency, supports his doctrine by a quotation from Euripides^a—

What do men need save only these two things,
Earth's corn and draughts of water from the spring?
These are to hand, our natural nutriment.

That the rest of the philosophers do this is not 272 paradoxical, but we shall find even those accusers of grammar, Pyrrho and Epicurus, acknowledging its necessity. Of these it is recorded that Pyrrho was constantly reading Homer's poetry, which he would never have done unless he knew that it was useful, and that grammar therefore was necessary; and 273 Epicurus has been detected as guilty of having filched the best of his dogmas from the poets. For he has been shown to have taken his definition of the intensity of pleasures,—that it is “the removal of everything painful,”—from this one verse—

When they had now put aside all longing for drinking and eating.^b

And as to death, that “it is nothing to us,” Epicharmus had already pointed this out to him when he said,—

To die or to be dead concerns me not.

So, too, he stole the notion that dead bodies have no feeling from Homer, where he writes,^c—

'Tis dumb clay that he beats with abuse in his violent fury.

Moreover, it is evident that it is not only these things which have been happily expressed by the poets, but 274 also notions about the gods, such as that expressed by

^a Cf. Eurip. *Frag.* 884 (Nauck).

^b Cf. Hom. *Il.* i. 469.

^c Cf. Hom. *Il.* xxiv. 54.

τὸ παρὰ τῷ Εὐριπίδῃ λεχθὲν ἐν Φρίξῳ,

ὅστις δὲ θνητῶν οἶεται καθ' ἡμέραν
κακὸν τι πράσσειν τοὺς θεοὺς λελθέναι,
δοκεῖ πονηρὰ, καὶ δοκῶν ἀλίσκεται
ὅταν σχολὴν ἄγουσα τυγχάνῃ δίκη.

ἀλλ' εἴπερ ταῦτα καὶ τὰ τούτοις εὐκόστα χρειώδη
ἐστί, λαμβάνεται δ' οὐ χωρὶς γραμματικῆς, ἔσται
276 καὶ ἡ γραμματικὴ τῶν βιωφελῶν. ἔχει δ' ἂν τινα,
φασίν, ἐξαιρέτως καὶ ταῖς τῶν μανθανόντων
αὐτῆν πατρίσιν ἀναγκαῖα. Λεβεδίων γοῦν δια-
φερομένων πρὸς τοὺς ἀστυγείτονας περὶ Καμανδώ-
δοῦ ὁ γραμματικὸς τὸ Ἰππωνάκτειον παραθέμενος
ἐνίκα,

μηδὲ . . . μοι μὴ
λαλεῖν Λεβεδίην ἰσχάδ' ἐκ Καμανδώδοῦ.

ὀμηλικούς τε παρεχομένη τοὺς προσέχοντας αὐτῇ
εὐθύς καὶ ταύτῃ [καὶ] τοῖς πέλας κατὰ πολλὰς
276 περιστάσεις ὀνησιφόρος γίνεται. πάρεστι δὲ τὸ
λεγόμενον σκοπεῖν ἐξ αὐτῶν τῶν ἀποτελεσμάτων.
Σώστρατος γάρ, ὡς φασίν, ἀποσταλεῖς ὑπὸ Πτολε-
μαίου πρὸς τὸν Ἀντίγονον βασιλικῆς τινὸς ἔνεκα
χρείας, κάκεινον εἰκαιότερον ἀποκρινομένου, ἐπ-
ἔτυχεν εἰπῶν

οὕτω δὴ κέλειαι, γαιήοχε κυανοχαῖτα;
τόνδε φέρω Διὶ μῦθον ἀπηγέα τε κρατερόν τε;
ἢ τι μεταστρέψεις; στρεπταὶ μὲν τε φρένες
ἔσθλων.

ταῦτα γὰρ ἀκούσας Ἀντίγονος μετεβάλετο.

* Cf. Eurip. *Phrixus* (Frag. 832 Nauck).

Euripides in his *Phrixus*,^a—

Whoe'er of mortals, sinning day by day,
Deemeth the gods are blind to his misdeeds,
Thinks wrongly, and in thinking thus is caught
When Justice, haply, has some leisure time.

But if these and similar sayings are useful, and are not apprehended without the Art of Grammar, then grammar too will be profitable for life. And it will 275 also contain, they say, some things which are especially necessary for the countries of those who learn it. Thus, when the Lebedians^b were quarrelling with their neighbours about Camandodus, the Grammarian won the victory by quoting from Hipponax^c—

Mutter not to me
Of figs Lebedian from Camandodus.

Also, by rendering those who attend to it sociable, in this way too it obviously becomes helpful to their neighbours in many circumstances. The truth of this 276 statement one can judge from the actual results. For when Sostratus,^d as they say, was sent to Antigonus by Ptolemy to make some request for the king, and the former gave a rather hasty reply, Sostratus gained his point by saying,—

Biddest thou thus, Earth-shaker, whose locks are the blue
of the sea-waves?
Shall I bear unto Zeus this harsh and stubborn answer?
Wilt thou not alter at all? Yet the minds of the good may
be altered.*

For on hearing this Antigonus changed his mind.

^b i.e. inhabitants of the (Ionian) Greek city Lebedos, on the coast of Lydia.

^c Hipponax of Ephesus wrote satirical verse in iambics, circ. 530 B.C.

^d Famous architect under Ptolemy I, King of Egypt, who was opposed by Antigonus ("King of Asia" Minor), circ. 320-310 B.C.

* Cf. Hom. *Il.* xv. 201 ff.

277 Πολλῶν δὴ τοιούτων λεγομένων εἰς τὸ χρησιμώτατον εἶναι τὸ τῆς γραμματικῆς μέρος τὸ περὶ ποιητὰς καὶ συγγραφεῖς καταγιγνόμενον, δείγματος χάριν τοῖς ἐκκειμένοις ἀρκεσθέντες λέγωμεν πρὸς ἕκαστον αὐτῶν. τὸ τοῖνυν βιωφελῆ εἶναι τὴν ποιητικὴν γνωμολογίαν καὶ φιλοσοφίας ἀρχήν, ταύτης δὲ ἀποδοτικὴν ὑπάρχειν τὴν γραμματικὴν, 278 ὄντως γραμματικόν ἐστίν. πρῶτον μὲν γάρ, ἵνα συνδράμωμεν αὐτοῖς μηδὲν ποιητικῆς κατεϊπόντες, ἀλλ' οὖν γε ἐκείνο πρόδηλόν ἐστίν ὅτι ὅποσα μὲν βιωφελῆ καὶ ἀναγκαῖα εὐρίσκεται παρὰ ποιηταῖς, οὐδ' ἐστὶ τὰ γνωμικὰ καὶ παραινετικά, ταῦτα σαφῶς αὐτοῖς πέφρασαι καὶ οὐ δεῖται γραμματικῆς, (ὅποσα δὲ δεῖται γραμματικῆς)¹ καθάπερ τὰ ἐν ξέναις ἱστορίαις κείμενα ἢ αἰνιγματωδῶς ἐκφερόμενα, ταῦτ' ἐστὶν ἄχρηστα, ὥστε καὶ τῇ ἀπ' ἐκείνων ὠφελεία μὴ συνεισέρχεσθαι αὐτῶν τὸ 279 χρεῖωδες τῆς γραμματικῆς καὶ τῇ τούτων ματαιότητι συμπεριφέρεσθαι. εἶτα φάσις μόνον ἐστὶν ἡ γνώμη, καθάπερ τὸ τοιοῦτο,

σοφὸν γὰρ ἐν βούλευμα τὰς πολλὰς χέρας
νικᾷ, σὺν ὄχλῳ δ' ἀμαθία πλεῖστον κακόν·

φάσει δὲ οὐ πείθεται ὁ νοῦς περὶ τοῦ καλῶς εἰρησθαι ἢ μὴ [εἰρησθαι], ἀλλ' ἀποδείξεων δεῖται. αἱ δὲ ἀποδείξεις τῶν καθηκόντως λεγομένων ἢ μὴ οὐ γραμματικῆς εἰσὶν ἀλλὰ φιλοσοφίας· τοῖνυν καὶ ταύτη περισσὴν καὶ ματαίαν συμβέβηκεν εἶναι τὴν γραμματικὴν. καὶ μὴν εἴπερ διὰ τὸ πολλὰ καλῶς εἰρησθαι τοῖς ποιηταῖς καὶ βιωφελῶς

¹ (ὅποσα δὲ δεῖται γραμματικῆς) addidi: (ὅποσα δ' ἀσαφῆ) add. Shorey.

Seeing that many such arguments are used to 277 prove that the part of grammar which deals with poets and prose-writers is most useful, let us content ourselves with the samples we have now set forth and reply to each one of them. Thus, the statement that the gnomic sayings of the poets are useful for life and the origin of philosophy, and that grammar is expository of them, is truly worthy of the Grammarians. For, in the first place,—to concur with them in 278 making no charge against poetry,—it is certainly plain that all the sayings in the poets which are found useful for life and necessary,—such as are those of a gnomic and hortatory character,—are expressed by them clearly and have no need of grammar; while all those which have need of it,—such as those which consist of foreign stories or are enigmatically expressed,—are useless; so that the usefulness of grammar both fails to accompany the benefit of the former sayings and spins round with the idle talk of the latter. Secondly, the gnomic sentence is only 279 an assertion, such as this,^a—

For one wise head excels a hundred hands,
But crowd-clapp'd folly is a monstrous ill.

But reason does not put trust in an assertion, as to whether it is rightly stated or not, but demands proofs. And proofs of fair statements or unfair are matters for philosophy and not for grammar; so that it turns out that in this respect also grammar is superfluous and idle.—Furthermore, if it is because of the many fine and profitable sayings of the poets that

^a Cf. Eurip. *Antiopē* (*Frag.* 220 Nauck).

χρησίμη ἐστὶν ἢ προφήτης γραμματικῆ αὐτῶν,
ἐπεὶ πολλαπλασίονα τούτων διαστρόφως καὶ ἐπὶ
λύμῃ τοῦ βίου παρ' αὐτοῖς ἐξενήκεται, ἄχρηστος
γενήσεται. καθὰ γὰρ ἔστι τις ὁ εἰπὼν

μὴ Πλούτων εἴπης· οὐχὶ θαυμάζω θεὸν
ὄν χωὶ κάκιστος βραδίως ἐκτήσατο,

οὕτως ἔστι καὶ ὁ τούναντίον ἀποφανόμενος,

ὦ χρυσὲ δεξίωμα κάλλιστον βροτοῖς,
ὡς οὔτε μήτηρ ἡδονὰς τοίας ἔχει,
οὐ παῖδες ἀνθρώποισιν, οὐ φίλος πατήρ,
οἷας σὺ χοῖ σὲ δώμασιν κεκτημένοι.

καὶ πάλιν

εὖ πράσσει· τὰ φίλων δ' οὐδὲν ἦν τις δυστυχῆ.

καὶ

κάλλιστα μουσῶν φθέγγεται πλουτῶν ἀνήρ.

280 ἀναποδείκτως μὲν οὖν λεγομένων τῶν οὕτως
ἐναντιῶν ἐπιρρεπέστερον ἔχουσιν ἄνθρωποι πρὸς
τὴν τοῦ χείρονος ἐκλογὴν, καὶ διὰ τοῦτο βλαπτικὴ
ἀναφαίνεται ἢ ποιητικῆ· διακρινομένων δὲ αὐτῶν,
καὶ τῶν μὲν ἀθετουμένων τῶν δὲ προκρινομένων,
χρειώδης γίνεται οὐχ ἢ γραμματικῆ ἀλλ' ἢ δια-
κρίνειν δυναμένη φιλοσοφία. ποιητικοῖς τε μαρτυ-
ρίοις χρῶνται οὐχ οἱ γνησίως φιλοσοφούντες
(τούτων γὰρ ὁ λόγος αὐτάρκης ἐστὶ πρὸς πειθῶ)
ἀλλ' οἱ τὸν πολὺν καὶ ἀγοραῖον φενακίζοντες

281 ὄχλον· οὐ γὰρ δυσχερὲς ποιητὰς μαχομένους καὶ
εἰς ὃ τι ἂν θέλωσιν ἄδοντας δείξαι, ὅτε καὶ οἱ
προηγούμενος φιλοσοφούντες πολλὰ μαχομένως
λέγουσιν. τῶν δὲ γραμματικῆς κατηγορῶν ὁ μὲν
Πύρρων παρ' ἕκαστα τὴν Ὀμηρικὴν διετύλισσε

grammar, their interpreter, is useful, it will be useless
when they utter sentiments, much more numerous
than the former, of a perverse character and ruinous
for practical life. For just as there is one who de-
clares,^a—

Speak not of Wealth; I honour not a god
Whom e'en the basest makes his own with ease;

so there is another who asserts the opposite,

Hail, gold, thou boon most fair to mortal men!
For neither mother doth such joys provide
To men, nor children, no, nor father dear,
As thou, and whoso hold thee in their homes.^b

And again,—

Fare well! The luckless man finds friendship naught.^c

And,—

Sweetest of music is the rich man's voice.

However, as statements so contrary as these are 280
made without proof, men are more prone to choose
that which is worse, and for this reason poetry is
openly seen to be injurious; and if they are being
distinguished, and the one sort set aside and the
other preferred, what is useful is not grammar but
that which is capable of making the distinction,
namely philosophy. Further, it is not the genuine
philosophers who make use of testimonies from the
poets (for with them the argument is sufficient of
itself to carry conviction), but those who humbug the
vulgar crowd; for there is no difficulty in showing 281
that the poets are at odds and sing to whatever tune
they please, when even the leading philosophers
make many conflicting statements. Of the accusers
of grammar, Pyrrho used to unroll the poems of

^a Cf. § 271.

^b Cf. Eurip. *Danaë* (*Frag.* 326 Nauck).

^c Cf. Eurip. *Phoeniss.* 403.

ποίησιν οὐ πάντως διὰ τὴν εἰρημένην αἰτίαν, ἀλλὰ
τάχα μὲν ψυχαγωγίας χάριν καὶ ὡς εἰ κωμῳδῶν
ἠκροῦτο, τάχα δὲ καὶ τοὺς ποιητικούς παρατηρῶν
282 τρόπους καὶ χαρακτήρας· λέγεται γὰρ αὐτὸν καὶ
ποίησιν εἰς τὸν Μακεδόνα Ἀλέξανδρον γράψαντα
μυρίοις χρυσοῖς τετιμηῆσθαι. οὐκ ἀπέοικε δὲ καὶ
283 διεξήλθομεν. ὁ δὲ Ἐπίκουρος οὐκ ἐκ τῶν Ὀμη-
ρικῶν εἶληφε τὸν ὄρον τοῦ μεγέθους τῶν ἡδονῶν.
μακρῶ γὰρ διαφέρει τὸ λέγειν ὅτι ἐπαύσαντό τινες
πίνοντες καὶ ἐσθιοντες καὶ τὴν αὐτῶν ἐπιθυμίαν
πληροῦντες (τοῦτο γὰρ ἐστὶ τὸ

αὐτὰρ ἐπεὶ πόσιος καὶ ἐδητύος ἐξ ἔρον ἔντο)

τοῦ φάναι ὄρον εἶναι τῶν περὶ τὰς ἡδονὰς μεγεθῶν
τὴν τοῦ ἀλγοῦντος ὑπεξείρασειν· τοῦτο γὰρ οὐ
πάντως κρέασι καὶ οἴνω ἀλλὰ καὶ τοῖς λιτοτάτοις
284 πέφυκε γίνεσθαι. ἄλλως τε ὁ μὲν ποιητῆς ἐπὶ
προσφερομένων μόνων ἐποίησατο τὴν ἀπόφασιν,
Ἐπίκουρος δὲ ἐπὶ πάντων τῶν ἀπολαυστῶν, ἐν
οἷς ἐστὶ καὶ ἡ ἀφροδίσιος μῆξις, περὶ ἧς πάντες
ἴσασι οἷαν ἔσχε γνώμην Ὀμηρος. τό τε τὸν
θάνατον [μὲν] μηδὲν εἶναι πρὸς ἡμᾶς εἴρηται μὲν
ἴσως τῷ Σώφρονι, ἀποδέδεικται δὲ Ἐπικούρω,
καὶ ἔστιν οὐ τὸ εἰπεῖν ἀλλὰ τὸ ἀποδείξαι θαυμαστόν.
285 εἶτα οὐδὲ κατὰ τοῦτο ἔφησεν ὁ Ἐπίκουρος τὸν
θάνατον μηδὲν εἶναι πρὸς ἡμᾶς, καθὼ ἀδιάφορόν
ἐστὶν ἢ ζῆν ἢ μῆ· πολλῶ γὰρ αἰρετώτερον τὸ ζῆν
διὰ τὸ αἰσθανομένων εἶναι τὸ ἀγαθόν· ἀλλ' ἐν
ἀναισθησίᾳ οὔτε κακόν τι εἶναι οὔτε ἀγαθόν. τὸ

^a Cf. § 272.

^b Cf. § 273.

^c Sophron of Syracuse, writer of Mimes, circ. 440 B.C.: for

Homer one by one, and that not altogether for the
reason stated,^a but possibly because of the pleasure
they gave him, as if he were listening to a comedy,
and perhaps with an eye to his poetic tropes and
characters; for Pyrrho himself, it is said, wrote a
282 poem for Alexander of Macedon and was rewarded
with thousands of gold pieces. And it is not unlikely
that there were also other reasons which we have dis-
cussed in our *Pyrrhoneia*. And Epicurus did not take
283 his definition of the intensity of pleasures from the
Homeric poems.^b For there is a vast difference
between saying that certain persons ceased from
drinking and eating and satisfying their appetite (for
that is the meaning of

When they had now put aside all longing for drinking
and eating)

and saying that the definition of the intensities of
pleasures is "the removal of the painful"; for this is
the natural effect not of meats and wine only but also
of the simplest foods. Moreover, the poet made his
284 statement about viands only, but Epicurus about all
enjoyable things, amongst which is sexual inter-
course, and all know what opinion Homer held
about it. That "death is nothing to us" was
said, no doubt, by Sophron,^c but was proved by
Epicurus, and it is not the saying but the proving
that is admirable. Moreover, Epicurus did not
285 assert that "death is nothing to us" in the sense
that to be alive or not is a matter of indifference;
for it is far preferable to be alive because the good
belongs to the sentient; his meaning was that
where sense is absent there is nothing evil or good.

the sentiment *cf.* "nil igitur mors est ad nos neque pertinet
hilum" (Lucret. iii. 830), and *P.H.* iii. 229.

μὲν γὰρ ἀναισθητεῖν τὰ νεκρὰ τῶν σωμάτων οὐχ
ὁ ποιητῆς μόνος οἶδεν ἀλλὰ καὶ ὁ σύμπασι βίος.
μήτηρ γοῦν πολλάκις υἱὸν θρηνοῦσα φησὶν “ ἀλλὰ
σὺ μὲν τούτων οὐκ ἐπαισθάνη, ἐγὼ δὲ ταλαι-
πωρῶ ”· καὶ ἐνατενίζουσα ἐπιφθέγγεται “ τίς δέ
286 ἔστιν ἔτι σοι τούτων ὄνησις; ” οὐ μὴν ἀλλ’ ἐὰν
ἔξετάζη τις, τὴν ἐναντίαν ἔχοντα δόξαν εὐρήσει
τὸν ποιητὴν. αἱ μὲν γὰρ ψυχαὶ κοινῶς διψῶσιν
αἵματος

(ἀλλ’ ἀποχάζεο βόθρου, ἄπισχε δὲ φάσγανον ὄξυ
αἵματος, ὄφρα πίω καὶ τοι νημερτέα εἶπω),

ὁ δὲ Τιτυὸς ὑπὸ γυπῶν διὰ τὴν ἐπιθυμίαν ἥπατο-
φαγεῖται, ὁ δὲ Τάνταλος ἔστηκεν ἐν λίμνῃ,

ἢ δὲ προσέκλυζε γενεῖω·

στεῦτο δὲ διψῶν, πῖεεν δ’ οὐκ εἶχεν ἐλέσθαι.

287 καὶ μὴν ὅσον ἐπὶ τῷ ὑπ’ Εὐριπίδου λεχθέντι περὶ
θεῶν, τὴν αὐτὴν καὶ οἱ ἰδιῶται δόξαν ἔχουσιν.
ἴσον γὰρ ἔστι τῷ

ὅστις δὲ θνητῶν οἶεται τοῦφήμερον
κακόν τι πράσσειν τοὺς θεοὺς λεληθέναι,
δοκεῖ ποιηρᾶ, καὶ δοκῶν ἀλίσκεται
ὅταν σχολὴν ἄγουσα τυγχάνῃ δίκη

καὶ τὸ οὕτω παρὰ τοῖς πολλοῖς λεγόμενον,

ὄψε θεῶν ἀλέουσι μύλοι, ἀλέουσι δὲ λεπτά·

288 μόνω δὲ διενήνοχε τῷ μέτρῳ. ἂν δὲ καὶ ἐξετάσῃ
τις, πολλῶ χειρόνα τῆς τῶν ἰδιωτῶν ὑπολήψεως
εὐρήσει τὰ τῶν ποιητῶν καὶ ὁ μὲν σκηνηκὸς

And that dead bodies are devoid of sense is a fact known not only to the poet but also to all mankind. Thus, a mother in her frequent laments over her son cries—“ But thou perceivest not these things, it is I that am in distress ”; and as she gazes at him fixedly she cries—“ What benefit from these things hast thou still ? ” Nevertheless, if one searches he will find the 286 poet holding the opposite opinion. For the souls commonly are thirsty for blood,—

Nay, keep away from the trench, from its blood averting
thy sharp sword,
So shall I drink my draught and announce to thee tidings
unerring.^a

And Tityos, because of his lust, has his liver eaten by vultures, and Tantalus stands in a lake,—

Against his chin was it dashing :
Hard strove he in his thirst, but failed to catch any for
drinking.^b

Furthermore, as regards what is said by Euripides 287 about the gods, ordinary folk too hold the same opinion. For the sentence^c—

Whoe’er of mortals, sinning day by day,
Deemeth the gods are blind to his misdeeds,
Thinks evil thoughts and thinking thus is caught
When Justice, haply, has some leisure time—

is matched by the sentence commonly quoted—

The mills of God grind slowly, but they grind exceeding
small^d;

for the difference is only in the metre. And if one 288 investigates one will find that the sentiments of the poets are much worse than the notions of ordinary folk. Yet he who has been proclaimed the philo-

^a Cf. Hom. Od. xi. 95 ff.

^b Cf. Hom. Od. xi. 583 f.; Adv. Phys. i. 69.

^c Cf. § 274.

^d Cf. Plutarch, p. 549 D.

ἀναγορευθεὶς φιλόσοφος ἔτι μετριώτερος φαίνεται,
λέγων μὴ εἶδέναι ᾧ προσεύχεται.

ὦ γῆς ὄχημα κάπῃ γῆς ἔχων ἔδραν,
ὅστις ποτ' εἰ σύ, δυστόπαστος εἰσιδεῖν,
Ζεὺς, εἴτ' ἀνάγκη φύσεος εἶτε νοῦς βροτῶν,
προσευξάμην σέ.

289 Ὅμηρος δὲ καὶ Ἡσίοδος κατὰ τὸν Κολοφώνιον
Ξενοφάνη

ὡς πλεῖστ' ἐφθέγγαντο θεῶν ἀθεμίτια ἔργα,
κλέπτειν μοιχεύειν τε καὶ ἀλλήλους ἀπατεύειν.

Κρόνος μὲν γάρ, ἐφ' οὗ τὸν εὐδαίμονα βίον
γεγονέναι λέγουσι, τὸν πατέρα ἠνδροτόμησε καὶ
τὰ τέκνα κατέπιεν, Ζεὺς τε ὁ τούτου παῖς ἀφελό-
μενος αὐτὸν τῆς ἡγεμονίας

γαίης νέρθε καθέισε καὶ ἀτρυγέτιο θαλάσσης,
τῆλε μάλ' ἤχι βάθιστον ὑπὸ χθονός ἐστι βέρεθρον.

290 τῷ δὲ Διὶ ἐπιβουλευουσιν οἱ συγγενεῖς, παρὸ καὶ
ὑπὸ Θέτιδος βοηθεῖται,

ὄππότε μιν ξυνδήσαι Ὀλύμπιοι ἤθελον ἄλλοι,
Ἥρη τ' ἠδὲ Ποσειδάων καὶ Παλλὰς Ἀθήνη·

ὠμότατος γάρ ἐστι, καὶ τὴν μὲν ἀδελφὴν καὶ
γυναῖκα ἱεροσύλου τρόπον κρεμάσας οὐκ ἀρκεῖται,
ἀλλὰ καὶ ονειδίζει λέγων

ἦ οὐ μέμνη ὅτε τ' ἐκρέμω ὑψόθεν, ἐκ δὲ ποδοῖν
ἀκμονας ἦκα δύω, περὶ χερσὶ δὲ δεσμὸν ἦλα
χρῦσεον ἄρρηκτον, σὺ δ' ἐν αἰθέρι καὶ νεφέλῃσιν
ἐκρέμω, ἠλάστεον δὲ θεοὶ κατὰ μακρὸν Ὀλυμπον;

* Cf. Eurip. *Troad.* 884.

† Cf. *Adv. Phys.* i. 193.

‡ Cf. Hom. *Il.* xiv. 204, and viii. 14.

sopher of the Stage seems still rather moderate when
he says that he does not know to whom he is
praying,^a—

Thou stay of earth, who hast on earth thy throne,
To see and know thee, who thou art, O Zeus,
Doth baffle wit! Art thou Necessity
Of Nature? Or mankind's Intelligence?
Howbeit, I invoke thee.

But Homer and Hesiod, according to Xenophanes of 289
Colophon,^b—

Tell full many a tale of the lawless deeds of immortals,
Thieving and wenching and dealing deceitfully one with
another.

For Cronos,^c in whose time, they say, was the life of
blessedness, castrated his father and swallowed his
children; while Zeus, his son, after robbing him of
his dominion,—

Under the earth he flung him and under the barren ocean,
Far away, under the earth where the pit of destruction is
deepest.^d

But Zeus' own brethren conspire against Zeus, and 290
so he is helped by Thetis,—

Whenas the other Olympians all were wishful to bind him,
Hera along with Poseidon, with Pallas Athenè to aid them.*

For he is most savage, and when he had hung up his
sister and wife like a temple-robber, not satisfied with
that he also reviles her, saying^f—

Hast thou already forgot how from heav'n thou didst
hang, with two boulders

Tied to thy feet, and about thy hands a chain did I fasten
Gold-wrought, not to be broken, and thou wast suspended
in heaven

High in the clouds; and the gods were enraged through-
out lofty Olympus?

* Cf. Hom. *Il.* i. 399 f.

† Cf. *Il.* xv. 18 ff. (addressing Hera).

291 τὸν δὲ Ἡφαιστον ὀργισθεὶς ῥίπτει ἀπὸ τοῦ οὐρανοῦ, ὁ δὲ

κάππεσεν ἐν Λήμνῳ, ὀλίγος δ' ἔτι θυμὸς ἐνήεν.
τὸν δὲ ἀδελφὸν ὑπερορᾷ

οἰκί' ἔχοντα

σμερδαλέ' εὐρώεντα, τά τε στυγέουσι θεοὶ περ.

πρόσσεισι δὲ αὐτῷ πρὸς τῇ ἀποτομία καὶ ἀκρασία, ὃς θεασάμενος τὴν Ἥραν ἐπὶ τῆς Ἰδῆς κεκοσμημένην οὐ καρτερεῖ μέχρι τῶν ἀποδεδειγμένων αὐτοῖς θαλάμων ἔλθειν, ἀλλ' ἐπὶ τοῦ ὄρους χαμαὶ ῥίψας ἑαυτὸν συγκυλίνδεται τῇ γυναικί,

τοῖσι δ' ὑπὸ χθῶν διὰ φύεν νεοθηλέα ποιήν,
λωτόν θ' ἐρσήεντα ἰδὲ κρόκον ἠδ' ὑάκυνθον.

292 ποικίλης οὖν πεφωραμένης τῆς ποιήσεως ἀνωφελῆς ἢ γραμματικῆ μὴ δυναμένη ἀποδείξει τίσι πιστευτέον ἐστὶν ὡς ἀληθεῖσι καὶ τίσι ἀπιστητέον ὡς μυθικοῖς ψεύσμασιν.

293 Ἀλλὰ πόλει φασι χρησίμην εἶναι τὴν γραμματικὴν, ἐπεὶ καὶ Λεβεδίοις νίκης αἴτιον ἐγένετο ἐκ ποιητικῆς μαρτύριον. ἔνεκα δὲ τούτου καὶ τὴν ὀρχηστικὴν ἀναγκαίαν λέγομεν εἶναι, ἐπεὶ Σώστρατος ὁ Ἀντιόχου ὀρχηστής, λαβόντος ὑποχείριον τὴν Πριήνην τοῦ βασιλέως πατρίδα οὖσαν αὐτοῦ, καὶ παρὰ τὸ συμπόσιον τὴν ἐλευθερίαν ἀναγκαζόμενος ὀρχεῖσθαι, οὐ καλὸν ἔφη τῆς πατρίδος αὐτοῦ δουλευούσης αὐτὸν ἐλευθερίαν ὀρχεῖσθαι· καὶ διὰ τοῦτο ἐλευθερωθῆναι τὴν πόλιν.

^a Cf. Pl. i. 593.

^b Cf. Pl. xx. 65, said of Pluto.

^c Cf. Pl. xiv. 347 f.

^d § 275.

^e A Greek city in Caria. Antiochus was king of Syria.

And in his rage he hurls Hephaestus out of heaven, 291
and he—

Crashed in Lemnos, and little of life was remaining within
him.^a

And he treats his brother with contempt, as—

Having for dwelling
Grim halls, dismal and dank, detested e'en by immortals.^b

And in addition to his ruthlessness he is given to incontinence, for on beholding Hera finely decked out on Ida he cannot bear waiting to retire to their appointed chamber, but flings himself to the ground on the mountain and rolls over with his wife,—

Grass, fresh grass, for their couch did the earth shoot
forth ever kindly,
Hyacinths, too, with the crocus, and lotus besprinkled with
dewdrops.^c

The varied nature of poetry being thus exposed, 292
grammar becomes useless since it cannot show us
which parts of it we should believe as being true, and
which we should disbelieve as mythical falsehoods.

Still, they declare that the Art of Grammar is useful 293
for the State, seeing that even for the Lebedians^d a
testimony from poetry was the cause of victory. But
we reply that for the same reason the art of dancing
is necessary since Sostratus, the dancer of Antiochus,
—when the king had subjugated Prienê,^e which was
his homeland, and he was being forced at the banquet
to dance “the liberty dance,”^f—declared that it
was not right for him to dance a “liberty-dance”
while his country was enslaved; and because of this

^f Danced at the Feast of “Eleutheria” (“Liberty”) held at Plataea in memory of the victory over the Persians.

294 εἶτα ἄλλο μὲν ἔστι τὸ πόλει χρήσιμον, ἄλλο δὲ τὸ ἡμῖν αὐτοῖς. σκυτοτομικὴ γοῦν καὶ χαλκευτικὴ πόλει μὲν ἔστιν ἀναγκαῖον, ἡμῖν δὲ χαλκεῦσι γενέσθαι καὶ σκυτοτόμοις πρὸς εὐδαιμονίαν οὐκ ἀναγκαῖον. διόπερ καὶ ἡ γραμματικὴ οὐκ ἐπεὶ πόλει χρησίμη καθέστηκεν, ἐξ ἀνάγκης καὶ ἡμῖν ἔστιν [ἢ] τοιαύτη. ἡ μὲν γὰρ ὀμιλητικὴ οὐκ ἀπὸ
295 γραμματικῆς περιγίνεσθαι πέφυκεν ἀλλ' ἀπὸ κοινῆς τινὸς ἐντρεχειας, εἰ μὴ τι καὶ Δημάδης ὁ ῥήτωρ γραμματικὸς ἦν,¹ πολλοῖς τῶν Ἀθηναίων μετὰ τὴν ἐν Χαιρωνείᾳ ἦταν συναιχμαλωτισθεῖς, καὶ εἰπὼν πρὸς τὸν Φίλιππον ἀναγκάζοντα εὐχαλεῖσθαι

τίς γάρ κεν ἀνὴρ, ὃς ἐναίσιμος εἶη,
πρὶν τλαίῃ πάσασθαι ἐδητύος ἠδὲ ποτήτος,
πρὶν λῦσαί θ' ἐτάρους καὶ ἐν ὀφθαλμοῖσιν
ιδέσθαι;

296 Ταῦτα μὲν οὖν πρὸς τὰς τῶν γραμματικῶν ἐπιχειρήσεις λεγέσθω· προηγουμένως δὲ ῥητέον ὡς εἰ μὲν μόνον ἦσαν οἱ ποιηταὶ βιωφελεῖς, τάχα ἂν ἡ γραμματικὴ βιωφελὴς ἐγίνετο περὶ τούτους πονουμένη, νῦν δὲ ἐπεὶ οὗτοι μὲν ἢ ἀνωφελεῖς εἰσὶν ἢ ὀλιγωφελεῖς, φιλόσοφοι δὲ καὶ οἱ λοιποὶ συγγραφεῖς διδάσκουσι τὰ ἀφέλιμα τῶν πραγμά-
297 των, οὐ δεόμεθα γραμματικῆς. καὶ ὅτι οἱ συγγραφεῖς μᾶλλον ἢ οἱ ποιηταὶ τὰ χρήσιμα τῷ βίῳ δηλοῦσιν, εὐεπιλόγιστον. οἱ μὲν γὰρ τοῦ ἀληθοῦς στοχάζονται, οἱ δὲ ἐκ παντὸς ψυχαγωγεῖν ἐθέλουσιν, ψυχαγωγεῖ δὲ μᾶλλον τὸ ψεῦδος ἢ τὰληθές. τοίνυν ἐκείνοις ἢ ὅτι τούτοις προσεκτέον τοῖς

¹ ἦν cj. Bekk. : ὡν mss., Bekk.

his city was set free. Moreover, usefulness for the 294 State is one thing, usefulness for ourselves another thing. Thus the arts of the cobbler and the copper-smith are necessary to the State, but it is not necessary for our happiness that we should become copper-smiths and cobblers. Hence, the Art of Grammar is not necessarily useful to us because it is useful to the State. For the art of conversation is not usually gained from grammar but from a general quickness of wit,—unless, indeed, Demades,^a the orator, was a 295 Grammarian, who (when he was captured along with many Athenians after the defeat at Chaeronea) said to Philip who was forcing him to join in a feast,—

Was there ever a man with a feeling for justice
Who in his heart could endure to share in eating and
drinking
Ere he had freed his companions and seen them standing
before him ?^b

Let thus much, then, be said in opposition to the 296 arguments of the Grammarians; but before all it should be stated that if the poets only were useful for life, then perhaps grammar, as occupied with them, had been useful for life, but as it is, seeing that the poets are either useless or of little use, whereas the philosophers and the other prose-writers instruct us in things that are useful, we do not need grammar. And the fact that the prose-writers rather than the 297 poets show what is useful for life is easy to demonstrate. For the former aim at the truth, but the latter seek by every means to attract the soul, and the false attracts more than the true. They, therefore, who expressly pursue what is false must listen to

^a Demades, the Athenian orator, opponent of Demosthenes, captured at Chaeronea in 338 B.C.

^b Cf. Hom. *Od.* x. 383 ff.

298 ἐπίτηδες τὸ ψεῦδος μεταδιώκουσιν. καθόλου τε, ὅσον ἐπὶ τοῖς ποιηταῖς, οὐχ οἷον ἀνωφελῆς τῷ βίῳ (ἢ γραμματικῇ)¹ ἀλλὰ καὶ βλαβερωτάτη. ἐπιτείχισμα γὰρ ἀνθρωπίνων παθῶν ἢ ποιητικῇ καθέστηκεν· καὶ ὡς

γέρων γέροντι γλώσσα ἡδίστην ἔχει,

οὕτως οἱ μὲν ἐρωτομανεῖς καὶ μέθυσοι τὰς Ἀλκαίου καὶ Ἀνακρέοντος ποιήσεις ἀναγνόντες προσεκαίονται, οἱ δὲ ὀργίλοι Ἰππώνακτα καὶ Ἀρχίλοχον ἀλείπτας ἔχουσι τῆς περὶ αὐτοὺς κακίας.

299 Τὰ μὲν οὖν ὑπὸ τῶν ἄλλων λεγόμενα κατὰ τὸν τόπον, καὶ μάλιστα τῶν Ἐπικουρείων, ἐστὶ τοιαῦτα· ἡμεῖς δὲ μηδὲν κατειπόντες τῆς ποιητικῆς ἄλλως ποιώμεθα τὰς ἀντιρρήσεις πρὸς τοὺς ἀξιοῦντας γραμματικὴν ἔχειν τέχνην τῶν παρὰ ποιηταῖς καὶ

300 συγγραφεῦσι λεγομένων διαγνωστικῇ. ἐπεὶ τοίνυν πᾶν σύγγραμμα καὶ πᾶσα ποίησις ἐκ λέξεων τῶν δηλουσῶν καὶ πραγμάτων τῶν δηλουμένων συνέστηκε, δεήσει τὸν γραμματικόν, εἴπερ ἔχει τέχνην διαρθρωτικὴν τῶν παρὰ συγγραφεῦσι καὶ ποιηταῖς λεγομένων, ἥτοι τὰς λέξεις μόνον ἢ τὰ ὑποκείμενα πράγματα γινώσκειν ἢ τὸ συναμφότερον. ἀλλὰ τὰ μὲν πράγματα, κἂν ἡμεῖς μὴ λέγωμεν, φαίνεται μὴ γινώσκειν. τούτων γὰρ τὰ μὲν ἐστὶ φυσικὰ τὰ δὲ μαθηματικὰ τὰ δὲ ἰατρικὰ τὰ δὲ μουσικά, καὶ δεῖ τὸν μὲν φυσικοῖς ἐπιβάλλοντα πράγμασιν εὐθὺς φυσικὸν εἶναι καὶ τὸν μουσικοῖς μουσικὸν εἶναι καὶ τὸν μαθηματικοῖς εὐθὺς εἶναι μαθηματικόν, καὶ ἐπὶ τῶν ἄλλων ὁμοίως. ὁ μέντοι γραμματικὸς ὅτι οὐκ ἔστιν ἐν τῷ αὐτῷ πάνσοφος καὶ

¹ (ἢ γραμματικῇ) add. cj. Bekk.

these rather than to those.—Further, to generalize, 298 so far as regards the poets, grammar is not merely useless for life but even most injurious. For poetry is a stronghold of human passions, and as

To ancient men an ancient's is the tongue most sweet,*

so too the love-maddened and the wine-bibbers are further inflamed by reading the poems of Alcaeus and Anacreon, while the irascible have for *aliptae* (or "trainers") in their vice Hipponax and Archilochus.

Such, then, are the things said by the rest, and 299 especially by the Epicureans, regarding this topic; but let us, without decrying poetry at all, set forth our counter-arguments against those who claim that there is an Art of Grammar capable of making distinctions in the statements of poets and prose-writers. Now since every composition and every 300 poem consists of indicating words and things indicated, it will be necessary for the Grammarian, if he possesses an art capable of discriminating among the things said by poets and prose-writers, to understand either the words only or the objects behind them or both. But that they do not understand the objects, even if we do not say so, is evident. For some of these are physical, some mathematical, some medical, some musical, and he who deals with the physical must of course be a physicist, he who deals with the musical a musician, and of course he who deals with the mathematical a mathematician, and similarly with the other sciences. That the Grammarian, however, is not simultaneously all-wise and skilled in every

* Cf. Meineke, *Com. Gr.* 5, p. 668.

πάσης ἐπιστήμης δαήμων, σὺν τῷ καὶ αὐτόθεν
 προσπίπτειν, ἔτι κάκ τῶν ἀποτελεσμάτων ἐλέ-
 301 γχεται. ποῦ γάρ τις δύναται τῶν ὠφρυνμένων
 γραμματικῶν Ἡράκλειτον συνεῖναι καὶ Πλάτωνι
 παρακολουθῆσαι λέγοντι “ τῆς ἀμερίστου καὶ
 αἰεὶ κατὰ ταῦτὰ ἐχούσης οὐσίας καὶ τῆς περὶ τὰ
 σώματα μεριστῆς τρίτον ἐξ ἀμφοῖν συνεκεράσατο
 οὐσίας εἶδος, τῆς τε ταυτοῦ φύσεως καὶ τῆς
 θατέρου ” καὶ ἤδη τὰ ἐξῆς περὶ τὴν λέξιν, ἃ πάντες
 οἱ Πλάτωνος ἐξηγηταὶ ἐσίγησαν. ἢ ποῦ τοῖς
 Χρυσίππου διαλεκτικοῖς θεωρήμασιν ἢ Ἀρχιμήδους
 τε καὶ Εὐδόξου μαθηματικοῖς ἐπιβάλλειν ἰσχύσει;
 302 καὶ μὴν ὡς ἐν τούτοις ἐστὶ τυφλός, οὕτω κὰν τοῖς
 περὶ αὐτῶν γραφεῖσι ποιήμασιν, οἷον Ἐμπεδο-
 κλέους λέγοντος

χαίρετ', ἐγὼ δ' ὑμῖν θεὸς ἄμβροτος, οὐκέτι
 θνητός,

πωλεῦμαι μετὰ πᾶσι τετιμένος,

καὶ πάλιν

ἀλλὰ τί τοῖσδ' ἐπίκειμ' ὡσεὶ μέγα χρῆμά τι
 πράσσων

εἰ θνητῶν περίεμι πολυφθερέων ἀνθρώπων;

303 ὁ μὲν γὰρ γραμματικὸς καὶ ὁ ἰδιώτης ὑπολήφονται
 κατ' ἀλαζονείαν καὶ τὴν πρὸς τοὺς ἄλλους ἀνθρώ-
 πους ὑπεροφίαν ταῦτ' ἀνεφθέγγχθαι τὸν φιλόσοφον,
 ὅπερ ἀλλότριόν ἐστι τοῦ κὰν μετρίαν ἔξιν ἐν φιλο-
 σοφίᾳ ἔχοντος, οὐχ ὅτι γε τοῦ τοσοῦτου ἀνδρός·
 ὁ δὲ ἀπὸ φυσικῆς ὀρμώμενος θεωρίας, σαφῶς
 γινώσκων ὅτι ἀρχαῖον ὄλωσ τὸ δόγμα ἐστὶ, τοῖς
 ὁμοίοις τὰ ὅμοια γινώσκεισθαι, ὅπερ ἀπὸ Πυθα-
 174

science is proved by the results of experience, besides
 being obvious of itself. For how can any of the grave 301
 Grammarians comprehend Heraclitus or follow
 the meaning of Plato where he says,^a—“ Between
 the Being which is indivisible and remains always
 the same and the Being which is divisible in bodies,
 He blended a third form of Being compounded of
 the twain, that is to say, out of the Same and the
 Other,” and the rest of the context, about which all
 the interpreters of Plato keep silence? Or how will
 he be able to deal with the dialectical investigations
 of Chrysippus or the mathematical of Archimedes and
 Eudoxus? Moreover, as he is blind in respect of 302
 these things, so he is also in respect of the poems
 written about them, as when Empedocles says,—

Hail ye, but I as a deathless god, no longer a mortal,
 Walk in your midst and am honoured by all.

And again,—

Why do I urge these things, as though it were some great
 matter

If I do far surpass all mortals doomed to destruction?

For the Grammarian and the ordinary man will 303
 suppose that the philosopher gave utterance to these
 sayings out of boastfulness and contempt for the rest
 of mankind,—a thing alien to one who is even
 moderately versed in philosophy, not to speak of a
 man of such eminence. But the man who sets out
 from physical investigation knows clearly that the
 dogma “ like is known by like ” is nothing but an
 old one ^b which is thought to have come down from

^a Cf. *Timaeus* 35 A.

^b Cf. *Adv. Log.* i. 92, 121.

γόρου δοκοῦν κατεληλυθέναι κείται μὲν καὶ παρὰ Πλάτωνι ἐν τῷ Τιμαίῳ, εἶρηται δὲ πολὺ πρότερον ὑπ' αὐτοῦ Ἐμπεδοκλέους,

γαίη μὲν γὰρ γαίαν ὀπώπαμεν, ὕδατι δ' ὕδωρ,
ἥερι δ' ἥέρα διον, ἀτὰρ πυρὶ πῦρ αἰδηλον,
στοργὴν δὲ στοργῆ, νεῖκος δὲ τε νεϊκέϊ λυγρῶ,

συνήσει ὅτι ὁ Ἐμπεδοκλῆς θεὸν ἑαυτὸν προση-
γόρευσεν, ἐπεὶ μόνος καθαρὸν ἀπὸ κακίας τηρήσας
τὸν νοῦν καὶ ἀνεπιθόλωτον τῷ ἐν ἑαυτῷ θεῷ τὸν
304 ἐκτὸς κατείληφεν. Ἄρατου τε μὴν γράφοιτος

ὄσον ἀπ' ὀφθαλμοῦ βολῆς ἀπολάμπεται αὐγῆ,
ἑξάκις ἂν τόσση μιν ὑποδράμοι· αὐτὰρ ἑκάστη
ἴση μετρηθεῖσα δὺν περιτέλλεται ἄστρο

οὐ γραμματικοῦ τοῦτο νοῆσαι, ὅτι ἡλίκη ἐστὶν ἡ
ἀπὸ τῆς ἡμῶν ὀψεως πρὸς τὴν ἀνατολὴν ἐκβαλλο-
μένη εὐθεία, ἑξάκις αὕτη ληφθεῖσα τὸν ζωδιακὸν
καταμετρήσει κύκλον ὥστε δὺ αὐτὴν ἀποτέμνεσθαι
ζώδια, ἀλλὰ μαθηματικοῦ, γραμμικῶς αὐτὸ ἀπο-
δεικνύντος, ὅτι τὸ ἕκτον τοῦ ζωδιακοῦ κύκλου
μέρος ἀπὸ τῆς μέχρι τῆς ἀνατολῆς ἐκβαλλομένης
305 εὐθείας καθέστηκεν. Τίμωνός τε τοῦ Φλιασίου
τὸν Πύρρωνα ἡλίῳ ἀπεικάζοντος ἐν οἷς φησὶ

μοῦνος δ' ἀνθρώποισι θεοῦ τρόπον ἡγεμονεύεις,
ὃς περὶ πᾶσαν ἐλῶν¹ γαίαν ἀναστρέφεται,
δεικνὺς εὐτόρνου σφαίρας πυρिकाύτορα κύκλον,

δόξει μὲν τοῖς γραμματικοῖς κατὰ τιμὴν αὐτὸ λέ-
γειν καὶ διὰ τὴν περὶ τὸν φιλόσοφον ἐπιφάνειαν·
ἄλλος δὲ ἐπιστήσει μήποτε καὶ μάχεται [τὰ

¹ ἐλῶν cj. Bekk. : ἐλῶν mss., Bekk.

Pythagoras and is found also in Plato's *Timaeus*; and it was stated much earlier by Empedocles himself,—

Verily earth by earth we behold, and water by water,
Aether divine by aether, and fire the destructive by fire,
Love, moreover, by love, and hate by dolorous hatred.

Such a man will understand that Empedocles called himself a god because he alone had kept his mind free from evil and unmuddied and by means of the god within him apprehended the god without. Again, 304 when Aratus writes,^a—

Far as the gleam of the ray from the eye doth reach in its shining,
Full six times such a space would he intercept; of the spaces
Each being equal in measure contains two signs of the star-world,—

it is not the part of the Grammarian to conceive that when the length of the straight line extending from our eye to the sun-rise is taken, six times this length will measure out the circle of the zodiac, so that it cuts off two of its Signs; rather it is the part of the mathematician, who proves by geometry that the sixth part of the circle of the zodiac is formed by the straight line which extends to the sun-rise. Also, when Timon of Phlius compares Pyrrho to the sun, ^b where he says,— 305

Thou, thou alone, art the guide of mankind, most like to the Sun-god,
Who the whole earth surveys as he revolves in his course,
Showing his globe well-turn'd, as a circle all-fiery and flaming,—

he will seem to the Grammarians to be saying it by way of commendation and on account of the philosopher's brilliance. But another man will ponder

^a Cf. Aratus, *Phaenom.* 541.

^b Cf. Lucretius (iii. 1043 f.), of Epicurus,—“omnes Praestinxit stellas, exortus ut aetherius Sol.”

παραδείγματα]¹ τῷ σκεπτικῷ βουλήματι τὰ ὑπὸ
 τοῦ Φλιασίου εἰς τὸν Πύρρωνα λεχθέντα, εἶγε ὁ
 μὲν ἥλιος τὰ πρότερον μὴ βλεπόμενα τῷ φωτὶ
 καταγάζων δείκνυσιν, ὁ δὲ Πύρρων καὶ τὰ προ-
 δήλως ἡμῖν ληφθέντα τῶν πραγμάτων εἰς ἀδηλό-
 306 τητα περιστάναι βιάζεται. τὸ δὲ οὐχ οὕτως
 ἔχει φαίνεται τῷ φιλοσοφώτερον ἐπιβάλλοντι, ἀλλ'
 ἡλίου τρόπον ἐπέχει φησὶ τὸν Πύρρωνα καθόσον
 ὡς ὁ θεὸς τὰς τῶν ἀκριβῶς εἰς αὐτὸν ἀτειζόν-
 των ὄψεις ἀμαυροῖ, οὕτω καὶ ὁ σκεπτικὸς λόγος
 τὸ τῆς διανοίας ὄμμα τῶν ἐπιμελέστερον αὐτῷ
 περιεχόντων συγχέει, ὥστε ἀκαταληπτεῖν περὶ ἐκά-
 στου τὴν κατὰ δογματικὴν θρασύτητα τιθεμένων.
 307 εἰ δὲ δεῖ περὶ ἰατρικῆς διεξέρχεται θεωρίας, καὶ
 παριστᾶν (ἔστιν)² ὡς καὶ ἐπιθετον πολλάκις προσ-
 ριφὲν ὑπὸ ποιητοῦ βαθὴν ἐμφαίνει καὶ, ἐπιστημονι-
 κὸν νοῦν, οἷόν ἐστι τὸ "βαθύσχοιον λεχεποῖν"
 παρ' Ὀμήρῳ. σημαίνει γὰρ ὁ μὴ δύναται νοῆσαι
 γραμματικὸς, (ὅτι)³ παραστατικὸν πρὸς συνου-
 σίαν ἐστὶ τὸ τῆς σχοίνου σπέρμα, λέχος καλοῦντος
 308 τοῦ ποιητοῦ τὴν μίξιν. ἢ τὸ παρὰ τῷ Εὐριπίδῃ
 ἐπὶ τῇ Λυκομήδους θυγατρὶ Δηδαμείᾳ λεγόμενον,
 ἢ παῖς νοσεῖ σου κἀπικυδύνως ἔχει.
 πρὸς τοῦ; τίς αὐτὴν πημονὴν δαμάζεται;
 μῶν κρυμὸς αὐτῆς πλευρὰ γυμνάζει χολῆ;⁴
 πυνθάνεται γὰρ μή τι πλευριτικὴ γέγονε διὰ τὸ
 τοὺς πλευριτικούς βήσσοντας ὑπόχολον ἀνάγειν.
 ὦν οὐδὲν οἶδεν ὁ γραμματικὸς.

¹ [τὰ παραδείγματα] del. Heintz.

² (ἔστιν) addidi (adduci potest Herv.).

³ (ὅτι) add. cj. Bekk.

χολῆ Valckenaer: χολῆς mss., Bekk.

whether the statements made by the man of Phlius
 about Pyrrho do not conflict with the Sceptics'
 doctrine, since the sun exposes things not previously
 seen by illuminating them with its light, whereas
 Pyrrho forces the things we have already perceived
 clearly to revert into obscurity. Yet it is plain to 306
 him who considers it more philosophically that this
 is not the case, but that he is declaring that Pyrrho
 is suspending judgement like the sun, in so far as that
 god dims the vision of those who gaze at him intently,
 and the Sceptics' argument likewise confuses the eye
 of the intellect in those who carefully attend to it, so
 that they fail to apprehend every one of the things
 postulated by the rash Dogmatists. And if one has 307
 to discuss medical doctrine, one can show how an
 epithet thrown out by a poet often conveys a deep
 and scientific meaning, as for instance Homer's βαθύ-
 σχοιον λεχεποῖν ("deep in rushes, with bed of
 grass").^a For it signifies what the Grammarian is
 unable to perceive,—namely that the seed of the
 rush (σχοῖνος) is conducive to venery, as the poet
 gives the name of "bed" (λέχος) to sexual inter-
 course. Another example is the saying in Euripides^b 308
 about Deidameia, the daughter of Lycomedes,—

Thy daughter's ill and her condition's dangerous.

Because of what? What sort of plague doth hold her down?

Is it a chill which thus torments her side with bile?

For he is inquiring whether she is suffering from
 pleurisy, since sufferers from pleurisy bring up bile
 when they cough. But none of these things is known
 to the Grammarian.

^a Cf. *Il.* iv. 383.

^b Cf. Eurip. *Frag.* 683 (Nauck).

309 Καίτοι περιττὸν ἴσως ἐστὶν ἀπὸ τῶν ἀρχαιοτέρων καὶ τάχα ἐπιστημονικῶν δυσωπεῖν τοὺς ἀπὸ τῆς γραμματικῆς, ὅτε καὶ τὸ τυχὸν ἐπιγραμματίον οὐχ οἰοί τ' εἶσι νοῆσαι, καθάπερ καὶ τὸ ὑπὸ τοῦ Καλλιμάχου εἰς Διόδωρον τὸν Κρόνον συγγραφέν,

ἦνιδε κου κόρακες τεγέων ἐπι κοῖα συνήπται
κρώζουσιν, καὶ κῶς αὖθι γενησόμεθα.

310 ὅτι γὰρ διαλεκτικώτατος ἦν ὁ Κρόνος καὶ ἐδίδασκε πῶς κριτέον ἐστὶ τὸ ὑγιὲς συνημμένον, ὥστε διὰ τὸ ἐπικρατεῖν ἤδη τὴν διδασκαλίαν καὶ τοὺς ἐπὶ τῶν δωμάτων κόρακας ἐκ πολλῆς τῆς κατηχήσεως κράζειν τὴν κατ' αὐτὸν τοῦ συνημμένου κρίσιν, εἶποι ἂν ὁ γραμματικός, καὶ μέχρι τούτου συνήσει

311 τὸ καὶ παιδίοις γνώριμον· ἐλθὼν δὲ καὶ ἐπὶ τὸ “καὶ κῶς αὖθι γενησόμεθα” ἤσυχάσει, μὴ εὐρίσκων τὸ δηλούμενον πρᾶγμα. φιλοσόφου γὰρ ἦν εἰπεῖν ὅτι ἀρέσκει τῷ Διοδώρῳ μηδὲν κινεῖσθαι. τὸ γὰρ κινούμενον ἦτοι ἐν ᾧ ἔστι τόπω κινεῖται ἢ ἐν ᾧ μὴ ἔστιν· οὔτε δὲ τὸ πρῶτον οὔτε τὸ δεύτερον· οὐκ ἄρα κινεῖται τι. τῷ δὲ μηδὲν κινεῖσθαι

312 τὸ μηδὲν φθεῖρεσθαι ἀκολουθεῖ. ὥς γὰρ διὰ τὸ μήτε ἐν ᾧ ἔστι τόπω κινεῖσθαι τι μήτε ἐν ᾧ μὴ ἔστιν οὐδὲν κινεῖται, οὕτως ἐπεὶ τὸ ζῶον οὔτε ἐν ᾧ ζῆ χρόνῳ ἀποθνήσκει οὔτε ἐν ᾧ μὴ ζῆ, οὐδέποτε ἄρα ἀποθνήσκει. εἰ δὲ τοῦτο, αἰεὶ ζῶντες κατ' αὐτὸν καὶ αὖθις γενησόμεθα.

^a See vol. i. p. xvi.

^b Cf. *P.H.* ii. 242, *Adv. Phys.* ii, 48. For Diodorus on the syllogism cf. *P.H.* ii. 110.

However, it is perhaps superfluous to put the 309 Grammarians to shame in respect of antiquated, or perhaps of scientific, diction when they are incapable of understanding even any chance epigram, such as that composed by Callimachus referring to Diodorus Cronos,^a—

Lo and behold how the daws on the roof-tops tell us by
croaking
What things are conjoined, also how we shall live on.

For the fact that Cronos was a great dialectician and 310 taught us how the logical validity of a hypothetical syllogism is to be judged, so that because of the influence of his doctrine even the daws on the houses, from hearing it constantly repeated, croak out his criterion of the valid “syllogism” (or “conjunction”),—all this the Grammarian might relate, and so far he will understand what is common knowledge even to children. But when he comes to “also how we shall 311 live on,” he will be dumbfounded, through not detecting what is indicated. For it belongs to the philosopher to explain that it is a tenet of Diodorus that nothing moves.^b For that which moves, moves either in the place where it is or in the place where it is not; but neither the first nor the second (is true); therefore nothing moves. And that nothing perishes 312 follows from the fact that nothing moves. For just as nothing moves because a thing moves either in the place where it is or in the place where it is not, so too, since the living creature does not die either during the time in which it lives or during that in which it does not live, consequently it never dies. And if this is so, since we are ever-living, according to him, “we shall live on.”

- 313 Οὐκοῦν τὰ μὲν πράγματα οὐ νοοῦσιν οἱ γραμματικοί. λείπεται τοίνυν τὰ ὀνόματα νοεῖν αὐτοῦς. ὁ πάλιν ἐστὶ ληρώδης. πρῶτον μὲν γὰρ οὐδὲν ἔχουσι τεχνικὸν εἰς τὸ λέξιν γινώσκειν. οὔτε γὰρ ἐκ τέχνης τινὸς μεμαθήκασιν ὅτι οἱ παρὰ τῷ Σοφοκλεῖ ποιμένες “ἰὼ βαλλήν” λέγοντες ἰὼ βασιλεῦ λέγουσι φρυγιστί, ἀλλὰ παρ’ ἄλλων ἀκούσαντες. διήνεγκε δὲ οὐδὲν ἢ βαρβάρου λέξεως ἐρμηνευτὰς γίνεσθαι ἢ τῆς κατὰ γλώσσαν προ-
 314 ενεχθείσης, ὁμοίως οὔσης ἀσυνήθους ἡμῖν. εἶτα καὶ τοῦτ’ ἀδύνατον ἐστὶν ἀπίρων οὐσῶν λέξων καὶ ἄλλως παρ’ ἄλλοις ὀνοματοποιηθεισῶν ἢ ἐπὶ πράγμασιν οἷς ἡμεῖς οὐκ ἴσμεν τεθεισῶν. οἷον ἐστὶ τὸ <ἐβαρβάριζε τὸ ὄλον, ἔλκη ἔχον ἐν τῇ χειρί, τοῦ μὲν>¹ ἐβαρβάριζεν ἀντὶ τοῦ ἐσύριζε κειμένου, βάρβαροι γὰρ οἱ Σύροι, τοῦ δὲ ὄλου ἀντὶ τοῦ παντός, ὄλον γὰρ καὶ πᾶν συνώνυμον, τοῦ δὲ ἔλκουσ ἀντὶ τῆς σύριγγος, εἶδος γὰρ ἔλκουσ ἢ σύριγγ. ὥστε τὸ ὄλον γίνεσθαι τοιοῦτον “ἐσύριζεν ὁ Πάν, σύριγγας ἔχων ἐν τῇ χειρί.” ἄλλως τε καὶ ποῦ ἴσασιν ἐνίας τῶν ἐπιστημονικῶν λέξεων οἱ γραμματικοί, καθάπερ τὴν παρὰ Ἀριστοτέλει ἐντελέχειαν ἢ τὸ τί ἦν εἶναι; ἢ ποῦ συνήσουσι τίνα δύναμιν ἔχει παρὰ σκεπτικοῖς ἢ “οὐδὲν μᾶλλον” φωνή, πότερον πνευματικὴ ἐστὶν ἢ ἀξιωματικὴ, καὶ ἐπὶ τίνος τάσσεται, ἀρὰ γε τοῦ
 316 ἐκτός ὑποκειμένου ἢ τοῦ περὶ ἡμᾶς πάθους; τί δὲ καὶ ἐροῦσιν ἐκ λέξεων τιῶν συντεθέντος τινὸς ποιήματος;

¹ <ἐβαρβάριζε . . . μὲν> add. cj. Fabr.

So then, the Grammarians do not understand the 313 objects (behind the words). It only remains, then, that they understand the words. And that again is nonsense. For, firstly, they have no technical means for getting to know terms. For it is not by any art, but by hearing it from others, that they have learnt that when the shepherds in Sophocles^a say “ἰὼ βαλλήν” what they say is the Phrygian for ἰὼ βασιλεῦ (“O king”). And there is no difference between interpreting a barbarous word and one which is obsolete, as they sound equally strange to us. And, 314 secondly, even this is impossible, as words are infinite in number and are constructed differently by different people, or applied to objects of which we have no knowledge. For instance, ἐβαρβάριζε τὸ ὄλον, ἔλκη ἔχον ἐν τῇ χειρί, where ἐβαρβάριζε stands for ἐσύριζε (“piped”), for the Syrians^b are barbarians, and ὄλον stands for πᾶν (“all”), πᾶν and ὄλον being synonyms, and ἔλκος (“sore”) for σύριγγ (“pipe” or “fistula”), for a fistula is a kind of sore. So the whole phrase amounts to this—ἐσύριζεν ὁ Πάν, σύριγγας ἔχων ἐν τῇ χειρί (“Pan played the pipes, holding the pipes in his hand”). Further, how do the Gram- 315 marians know some of the scientific terms, such as Aristotle’s ἐντελέχεια (“entelechy”) or τὸ τί ἦν εἶναι (“essence”)? Or how will they comprehend the meaning of the Sceptics’ formula οὐδὲν μᾶλλον (“no more”),^c whether it is interrogative or declaratory, and to what it refers,—whether to the external object or to our subjective feeling? Or what will they say 316 when a poem is composed of certain obscure expressions?

^b Note the word-play on Σύροι-ἐσύριζε.

^c Cf. P.H. i. 191.

* Cf. Soph. Frag. 144, Aesch. Pers. 658.

ἢ γάρ σοι δισοοῖσιν ὑπ' οὔρεσι δισοδὸς ἐραστῆς
 ἔφθιτο, καὶ νεάτην μοῦρ' ἀνέθηκε φύσιν.
 ἄρθρω ἐν ἀσπιδόεντι βεβηκότα γυῖα καθ' ὄλμου
 βλαισά¹ τροχαντήρων ἄχρι περιστρέφεται,
 σμερδαλέαι δ' ὑπένερθεν ἀλώπεκες, ἄχρι δοχαίης
 αἰῶνος χαλαρᾷ σύνδραμον ἁρμονίῃ.²

317 τοὺς γὰρ ἐραστὰς οὔτινές εἰσι καὶ τὰ ὄρη καὶ τὸ
 ἀσπιδόεν ἄρθρον καὶ τοὺς τροχαντήρας, ἔτι δέ
 καὶ τὸν ὄλμον καὶ τὰς ἀλώπεκας δοχαίην τε καὶ
 αἰῶνα καὶ ἁρμονίαν, μήτε τροπικῶς μήτε κατὰ
 ἱστορίαν ἀλλὰ κυρίως ἐξενεχθέντα ὀνόματα, κἄν
 μυριάκις ἐπιστήσωσιν, οὐ συνήσουσιν.

318 Εἰ οὖν μήτε τὰ πράγματα μήτε τὰς λέξεις
 ἴσασιν, παρὰ δὲ ταῦτα οὐδέν ἐστιν ἢ ποιήσεις ἢ τὸ
 σύγγραμμα, οὐκ ἂν ἔχοιεν τέχνην ἐξηγητικὴν
 τῶν παρὰ ποιηταῖς καὶ συγγραφεῦσι λεγομένων.
 ἄλλως τε καὶ εἰ χρήζομεν γραμματικῆς, ἐπὶ τῶν
 ἀρίστων ποιημάτων χρήζομεν ἀλλ' οὐ τῶν μοχθη-
 ρῶν. ἀριστον δὲ ποιήμᾳ ἐστὶ κατ' αὐτοὺς τὸ

319 σαφές· ἀρετὴ γὰρ ποιήματος ἢ σαφήνεια, καὶ
 μοχθηρὸν τὸ ἀσαφές παρὰ γραμματικῆ. οὔτε
 οὖν ἐπὶ ἀρίστου ἐστὶ ποιήματος χρειώδης διὰ τὸ
 μὴ δεῖσθαι ἐξηγήσεως σαφές ὄν, οὔτε ἐπὶ τοῦ

320 μοχθηροῦ διὰ τὸ αὐτόθεν εἶναι μοχθηρὸν. τὸ τε
 ἀνεπικρίτως διαφωνούμενον ἀκατάληπτόν ἐστιν,

¹ βλαισὰ scripsi : βᾶσα mss., Bekk. (βαιὰ Hermann).

² σμερδαλέαι . . . ἀλώπεκες . . . χαλαρᾷ σύνδραμον ἁρμονίῃ
 Hermann : σμερδαλέα . . . ἀλώπεκος . . . χαλαρὰν σύνδρομον
 ἁρμονίης mss., Bekk.

Under a twofold mountain a twofold lover did perish :
 Destiny, nevertheless gave them a strange new form.
 Set in joints like a serpent's the crooked limbs of the body
 Turn'd and twisted around down to the joints of the
 hips ;
 Dread to behold were the foxes beneath, lax Harmony's
 race-mates,
 Down to the secret hold storing the ages to come.^a

For who the ἐρασταί (" lovers ") are, and the ὄρη 317
 (" mountains "), and ἀσπιδόεν ἄρθρον (" serpent-like
 joint "), and τροχαντήρες (" hip-joints "), and also
 ὄλμος (" trunk " of the body), and ἀλώπεκες (" foxes "
 = " loins "), and δοχαίη (" receptacle, " " store-
 house "), and αἰών (" age, " " posterity "), and ἁρμονία
 (" harmony "),—words used neither metaphorically
 nor as technical terms but in their proper sense,—
 these the Grammarians will not understand though
 they ponder them ten thousand times.

If, then, they know neither the objects nor the 318
 words, and the poem or the treatise is nothing beyond
 these, they will not possess an art capable of explain-
 ing what is said by the poets and prose-writers.—
 And further, if we have need of the Art of Grammar,
 we need it to deal with the best poems and not with
 the bad ones. But, according to them, the clear
 poem is the best ; for the excellence of a poem is its 319
 clearness, and, for the Art of Grammar, want of
 clearness is bad. Thus grammar is not needed
 either in the case of the best poem, since it, being
 clear, requires no explanation, nor in the case of the
 bad poem because it is obviously bad.—Also, that 320
 which is disputed without a decision is non-appre-

^a " The secret hold " etc. means " partes genitales, quibus
 spes posteritatis continetur " (Fabr.); and " Harmony "
 means " veneri amores " (Fabr.). The lovers were Cadmus
 and his wife Harmonia, who were both turned into serpents.

ἀνεπικρίτως δ' ἔτι διαφωνοῦσιν ἐν ταῖς ἐξηγήσεσιν οἱ γραμματικοὶ περὶ τῆς τοῦ συγγραφέως διανοίας· ἀκατάληπτος ἄρα ἐστὶν ἡ τοῦ συγγραφέως διάνοια, καὶ διὰ τοῦτο ἄχρηστος ἡ γραμματικὴ.

Ἄλλὰ γὰρ πρὸς μὲν τοὺς ἀπὸ τούτου τοῦ μαθήματος ἀναγομένους ἐπὶ τοσοῦτον εἰρήσθω· ἀπ' ἄλλης δὲ ἀρχῆς σκεψώμεθα καὶ πρὸς τοὺς ῥήτορας ἃ δεῖ λέγειν.

hensible ; but the Grammarians, in their explanation regarding the writer's meaning, still dispute without coming to a decision ; the writer's meaning, therefore, is non-apprehensible, and on this account grammar is useless.

Well then, let thus much be said in reply to those whose studies are based on this branch of learning ; and, making a fresh start, let us also consider what we ought to say in reply to the Rhetoricians.

B

ΠΡΟΣ ΡΗΤΟΡΑΣ

- 1 Τοῖς περὶ γραμματικῆς διεξοδευθεῖσιν ἡμῶν ἀκόλουθον ἂν εἶη καὶ περὶ ῥητορικῆς λέγειν, ἀνδρικωτέρας ἤδη καθεστῶσης καὶ τὸ πλεον ἐπ' ἀγορᾶς καὶ βημάτων ἐξεταζομένης. ἀλλ' ἐπεὶ κοινὸν ὑπάρξειός τε καὶ ἀνυπαρξίας ἐστὶν ἡ ἔννοια, καὶ οὐδὲν τούτων ἕτερον οἶόν τέ ἐστι ζητεῖν μὴ προλαβόντας ὃ ἐστὶ τὸ ζητούμενον, φέρε πρῶτον σκεψώμεθα τί ἂν εἶη ῥητορικὴ, τὰς ἐπιφανεστάτας εἰς τοῦτο τῶν φιλοσόφων ἀποδόσεις παρατιθέμενοι.
- 2 Πλάτων μὲν οὖν ἐν τῷ Γοργία κατὰ διοριστικὴν ἔφοδον τοιοῦτον ἔοικεν ἐξ ἐπισυνθέσεως ὅρον τῆς ῥητορικῆς ἀποδιδόναι “ ῥητορικὴ ἐστὶ πειθοῦς δημιουργὸς διὰ λόγων, ἐν αὐτοῖς τοῖς λόγοις τὸ κύριον ἔχουσα, πειστικὴ, οὐ διδασκαλική,” τὸ μὲν “ διὰ λόγων ” προστιθεὶς τάχα παρόσον πολλά ἐστὶ τὰ πειθῶ τοῖς ἀνθρώποις ἐνεργαζόμενα χωρὶς λόγου, καθάπερ πλοῦτος καὶ δόξα καὶ ἡδονὴ καὶ
- 3 κάλλος. οἱ γοῦν παρὰ τῷ ποιητῇ δημογέροντες, καίπερ ἐκπεπολεμημένοι καὶ τελῶς ἀπηλλοτριωμένοι πρὸς τὴν Ἑλένην ὡς κακῶν αἰτίαν γενομένην αὐτοῖς, ὁμως ὑπὸ τοῦ περὶ αὐτὴν κάλλους πείθονται,

BOOK II

AGAINST THE RHETORICIANS

FOLLOWING on our discussion of the Art of Grammar 1 we shall speak of the art of Rhetoric,—in itself a more manly art, and one which is for the most part tested in the Assembly and the Law-courts. But since the notion of a thing holds of it equally whether it be existent or non-existent, and it is impossible to investigate either of these states without having grasped beforehand what the object of investigation is, come and let us consider first what Rhetoric is by comparing the most notable accounts of it given by the philosophers.

Now Plato in the *Gorgias*,^a using his method of de- 2 finition, seems to set forth a composite definition of Rhetoric such as this,—“ Rhetoric is the creator of persuasion by means of words, having its efficacy in the words themselves, and being persuasive, not instructive ”; and he added the phrase “ by means of words ” probably because there are many things which effect persuasion in men without speech, such as wealth and glory and pleasure and beauty. Thus 3 the elders of the folk (in the poet Homer), although exhausted by war and wholly estranged from Helen as the cause of their woes, are yet persuaded by her

^a Cf. *Gorg.* 453 A.

καὶ προσιούσης τοιαυτὰ τινα πρὸς ἀλλήλους διεξίασιν,

οὐ νέμεσις Τρῶας καὶ ἑυκνήμιδας Ἀχαιοὺς
τοῖηδ' ἀμφὶ γυναικὶ πολὺν χρόνον ἄλγεα πάσχειν.

4 Φρύνη τε, ὡς φασίν, ἐπεὶ συνηγοροῦντος αὐτῆ
Ἰπερίδου ἔμελλε καταδικάζεσθαι, καταρρηξαμένη
τοὺς χιτωνίσκους καὶ γυμνοῖς στήθεσι προκυλιν-
δουμένη τῶν δικαστῶν πλείον ἴσχυσε διὰ τὸ κάλλος
τοὺς δικαστὰς πείσαι τῆς τοῦ συνηγοροῦντος
ῥητορείας. τὸ δὲ αὐτὸ καὶ ἐπὶ χρημάτων ἐστὶν
ἡδονῆς τε καὶ δόξης· τούτων γὰρ ἕκαστον εὐρή-
σομεν οὕτω πείθον ὡς πολλάκις τινὰ τῶν καθη-
κόντων ὑπερβαίνειν. οὐ τοίνυν ἀσκόπως ὁ Πλάτων
ἀποβλέπων εἰς τὴν δι' αὐτῶν γινομένην πειθὴν
ἔλεξεν ὅτι ῥητορικὴ ἐστὶ πειθοῦς δημιουργὸς οὐχ
5 ὅπως οὖν ἀλλὰ διὰ λόγων. καὶ μὴν οὐκ ἐπεὶ
λόγοις πείθει, πάντως ἐστὶ ῥητορικὴ (καὶ γὰρ ἡ
ιατρικὴ καὶ αἱ ὁμοειδεῖς ταύτῃ τέχναι διὰ λόγου
πειθοῦσιν), ἀλλ' εἴ τις ἐν αὐτοῖς προηγουμένως
τοῖς λόγοις ὑποκειμένην ἔχει τὴν ἰσχύν, καὶ οὐ
κοινῶς, ἐπεὶπερ καὶ ἡ γεωμετρία καὶ ἀριθμητικὴ
καὶ πᾶσα ἡ τῶ γενεῖ θεωρητικὴ τέχνη ἐν λόγοις
προηγουμένως ἔχει τὸ κύρος, ἀλλ' ὅταν σὺν τού-
τοις μὴ διδασκαλικήν, ὥσπερ γεωμετρία, ἀλλὰ
πειστικὴν ποιῆται τὴν πειθὴν· ὅπερ ἦν ἴδιον
ῥητορικῆς.

6 Ξενοκράτης δὲ ὁ Πλάτωνος ἀκουστής καὶ οἱ
ἀπὸ τῆς στοᾶς φιλόσοφοι ἔλεγον ῥητορικὴν ὑπάρ-
χειν ἐπιστήμην τοῦ εὖ λέγειν, ἄλλως μὲν Ξενο-
κράτους τὴν ἐπιστήμην λαμβάνοντος καὶ ἀρχαϊκῶ

beauty, and at her approach they address one another
in this wise,^a—

Cause for anger is none that the Trojans and well-greav'd
Achaeans

Suffer for many a year sad woes for a woman so beautiful.

Phrynê too, as they say, when Hypereides was plead- 4
ing for her and she was on the point of being con-
demned, tore asunder her garments and with her
breasts bare flung herself at the feet of the judges,
and because of her beauty had more power to per-
suade her judges than the rhetoric of her advocate.
The same, too, holds good of money and pleasure and
glory; for we shall find each one of these so per-
suasive as often to make men overstep some of the
moral duties. It was not without reason, then, that
Plato, having regard to the persuasion they induce,
declared that rhetoric is "the creator of persuasion,"
not by any means you choose but "by means of
words." It is not, however, always rhetoric when 5
there is persuasion by words (for the art of medicine
also and arts similar to it persuade by speech), but
only if it is an art which has its efficacy dependent
mainly on words alone, and that not like the rest,
—since geometry, too, and arithmetic and every art
classed as theoretical depends for its efficacy mainly
on words,—but whenever, in addition, it employs
persuasion not in order to instruct, like geometry,
but to induce belief; for that is the special mark of
rhetoric.

But Xenocrates, the disciple of Plato, and the 6
Stoic philosophers asserted that rhetoric is "the
science of good speech"; though Xenocrates took
the word "science" in one sense,—i.e. in the old way,

^a Hom. II. iii. 156 f.

νόμῳ, ἀντὶ τῆς τέχνης, ἄλλως δὲ τῶν στωικῶν, ἀντὶ τοῦ βεβαίας ἔχειν καταλήψεις, ἐν σοφῷ μόνῳ φουμένῃ. τὸ δὲ λέγειν ἀμφότεροι παραλαμβάνουσιν ὡς διαφέρον τοῦ διαλέγεσθαι, ἐπειδήπερ τὸ μὲν ἐν συντομίᾳ κείμενον κἂν τῷ λαμβάνειν
 7 καὶ δίδοναι λόγον διαλεκτικῆς ἐστὶν ἔργον, τὸ δὲ λέγειν ἐν μήκει καὶ διεξόδῳ θεωρούμενον ῥητορικῆς ἐτύγχανεν ἴδιον. ἔνθεν γοῦν καὶ Ζήνων ὁ Κιτιεὺς ἐρωτηθεὶς ὅτῳ διαφέρει διαλεκτικὴ ῥητορικῆς, συστρέψας τὴν χεῖρα καὶ πάλιν ἐξαπλώσας ἔφη "τούτῳ," κατὰ μὲν τὴν συστροφὴν τὸ στρογγύλον καὶ βραχὺ τῆς διαλεκτικῆς τάπτων ἰδίωμα, διὰ δὲ τῆς ἐξαπλώσεως καὶ ἐκτάσεως τῶν δακτύλων τὸ πλατὺ τῆς ῥητορικῆς δυνάμειος αἰνιττόμενος.
 8 Ἀριστοτέλης δὲ ἐν τῷ πρώτῳ τῶν ῥητορικῶν τεχνῶν ἀπλούστερον παραδίδωσι τὴν ῥητορικὴν τέχνην λόγων. καὶ ζητουμένου πρὸς αὐτὸν ὅτι καὶ ἡ ἰατρικὴ τέχνη ἐστὶ λόγων ἰατρικῶν, ἀπολογούμενοί τινές φασιν ὅτι ἡ ἰατρικὴ τοὺς λόγους ἐφ' ἑτερόν τι ἀναφέρει τέλος, καθάπερ τὴν ὑγείαν,
 9 ἡ δὲ ῥητορικὴ ἀντικρὺς ἐστὶ λόγων τέχνη. καὶ ἄλλους δὲ ἐκτίθεται ὁ ἀνὴρ οὗτος ὅρους, περὶ ὧν οὐκ ἀναγκαῖόν ἐστιν ἡμῖν λέγειν τοῖς μὴ προηγουμένως τὸν περὶ ῥητορικῆς διεξοδεύουσι λόγον, ἀλλ' ὅσον τοῦ τὴν ιδιότητα ταύτης περινοῆσαι πρὸς τὴν χειρισθησομένην ἡμῖν ἀντίρρησιν. ἥς ἀρχὴ γένοιτ' ἂν εὐθέως ἀπὸ τῆς ἐκκειμένης νοήσεως. ἐπεὶ γὰρ τέχνην ἢ ἐπιστήμην λόγων ἢ τοῦ λέγειν καὶ πειθοῦς περιποιητικὴν βούλονται τυγχάνειν τὴν ῥητορικὴν οἱ τὴν ἔνοιαν αὐτῆς ἀποδιδόντες, πει-

as a synonym for "art,"—whereas the Stoics took it in another, as meaning "the holding firm apprehensions," which is inherent only in the Sage. But both parties assume that "speech" differs in sense from dialectical discussion, since speaking which is concise and consists in giving and receiving an account is the task of dialectic, but to speak on a given subject at length and with detailed exposition is the special characteristic of rhetoric. Hence, Zeno of Citium, when asked what is the difference between dialectic and rhetoric, clenched his fist and then opened it out and said, "This,"—comparing the compact and short character of dialectic to the clenching, and suggesting the breadth of the rhetorical style by the opening and extension of his fingers.⁴

In the first of his books on *The Art of Rhetoric* Aristotle describes rhetoric more simply as "the art of speech." And when it is objected against him that the art of Medicine also is the art of medical speech, some say by way of defence that the medical art directs its speech to another end, such as health, whereas rhetoric is precisely the art of words alone. And Aristotle puts forward other definitions also, which it is unnecessary for us to mention as we are not primarily discussing the description of rhetoric, but only in so far as it enables us to perceive its special character with a view to the refutation we propose to take in hand. And a beginning of this may be made at once from the concepts already stated. For since those who offer a concept of rhetoric assert that it is an art, or a science, of speech, or productive of speech and persuasion, holding fast

⁴ Cf. Cicero, *de Fin.* ii. 6, *Orat.* 32.

ρασόμεθα καὶ ἡμεῖς τῶν τριῶν τούτων ἐχόμενοι διδάσκειν τὸ ἀνυπόστατον αὐτῆς.

- 10 Πᾶσα τοίνυν τέχνη σύστημα ἔστιν ἐκ καταλήψεων συγγεγυμνασμένων καὶ ἐπὶ τέλος εὐχρηστον τῷ βίῳ λαμβανουσῶν¹ τὴν ἀναφορὰν· ἡ δὲ ῥητορικὴ οὐκ ἔστι σύστημα ἐκ καταλήψεων, ὡς παρα-
 11 στήσομεν· οὐκ ἄρα ἔστιν ἡ ῥητορικὴ. τῶν γὰρ ψευδῶν οὐκ εἰσὶ καταλήψεις, ψευδῆ δὲ ἔστι τὰ λεγόμενα τῆς ῥητορικῆς εἶναι θεωρήματα, τοιαῦτα ὄντα “οὕτω παραπειστέον τοὺς δικαστὰς καὶ ὄργην κινητέον ἢ ἔλεον καὶ μοιχῶ συνηγορητέον ἢ ἱεροσύλω”· (οἴ’)² ἐμφαίνει τὸ καθήκειν οὕτω τοὺς δικαστὰς παραπειθεῖν καὶ ὄργην ἢ ἔλεον κινεῖν· ἄπερ οὐκ ἔστιν ἀληθῆ, καὶ διὰ τοῦτο ἀκατάληπτα. οὐ τοίνυν αὐτῶν εἰσὶν αἱ καταλήψεις· ὧ συνεισέρχεται τὸ μηδὲ τὴν ῥητορικὴν ὑπάρχειν.
 12 καθάπερ οὖν οὐκ ἂν εἶπομεν τὴν τοιχωρυκικὴν εἶναι τινα τέχνην παραινούσαν τὸ “οὕτω δεῖ τοῖχον διορτυττεῖν,” καὶ τὴν κλεπτικὴν τὸ “οὕτω καθήκει κλέπτειν καὶ βαλαντιοτομεῖν” (ψευδῆ γὰρ ἔστι ταῦτα, καὶ οὔτε καθήκοντα οὔτε θεωρήματα), οὕτως οὐδὲ τὴν ῥητορικὴν ὑποληπτέον ἔχειν τεχνικὴν ὑπόστασιν, ἐπὶ τοιούτοις παραγγέλμασι σαλεύουσιν. ἀμέλει γέ τοι καὶ οἱ περὶ Κριτόλαον τὸν περιπατητικόν, καὶ πολὺ πρότερον οἱ περὶ Πλάτωνα, εἰς τοῦτο ἀπιδόντες ἐκάκισαν αὐτὴν ὡς
 13 κακοτεχνίαν μᾶλλον ἢ τέχνην καθεστηκυῖαν. καὶ μὴν ἐπεὶ πᾶσα τέχνη ἥτοι ἔστηκός ἔχει τὸ τέλος καὶ πάγιον, ὡς φιλοσοφία καὶ γραμματικὴ, ἡ τοῦ ὡς τὸ πολὺ ἐχόμενον, καθάπερ ἰατρικὴ τε καὶ κυβερνητικὴ, δεήσει καὶ τὴν ῥητορικὴν, εἴπερ

to these three descriptions we shall endeavour to show its unreality.

Now every art is “a system composed of co-
 10 exercised apprehensions directed to an end useful for life”^a; but, as we shall establish, rhetoric is not a system of apprehensions; therefore rhetoric does not exist. For of things false there are no apprehensions, but what are said to be the rules of rhetoric are false, being such as these,—“The judges must be misled by persuasion in this way,” “One must excite anger or pity,” “One must plead the cause of the adulterer or temple-robber,”—rules which declare the duty of thus misleading the judges and exciting anger or pity; but these are not true and consequently are not apprehensible. So there are no apprehensions of them; whence it follows that neither does rhetoric exist.—As, then, we would not
 12 say that burgling is an art which advises—“This is the way one ought to burgle a house,” or thieving an art which instructs us that “This is the right way to steal and to cut purses” (for these things are false, and neither duties nor rules), so we must not suppose that rhetoric has any technical foundation when it is based on such shaky injunctions. And in fact Critolaus the Peripatetic, and Plato long before him, in consideration of this, condemned rhetoric as being a base artifice rather than an art.—Moreover, since
 13 every art has an end which is either stable and fixed, like philosophy and grammar, or holds good for the most part, like medicine and piloting, rhetoric too,

^a Cf. P.H. iii. 188 for this Stoic definition.

¹ λαμβανουσῶν scripsi: λαμβανόντων mss., Bekk.
² (οἴ’)² addidi (ἐμφαίνοντα, κ. cj. Bekk.).

14 ἔστι τέχνη, τὸ ἕτερον τούτων ἐπαγγέλλεσθαι. οὔτε
 δὲ ἐστηκὸς ἔχει πᾶν τέλος¹ (οὐδὲ γὰρ αἰεὶ περι-
 γίνεται [περὶ] τῆς τῶν ἀντιδίκων νίκης, ἀλλ' ἔσθ'
 15 ὅτε ἕτερον μὲν προτίθεται ὁ ρήτωρ ἕτερον δὲ
 ἐξακολουθοῦν ἔχει τέλος) οὔτε τοῦ ὅς τὸ πολὺ
 ἐφιέμενον, ἐπεὶ πᾶς ρήτωρ ἑαυτῷ συγκρινόμενος
 πολλάκις ἐλείφθη μᾶλλον ἢ ἐνίκησεν, ἅτε διὰ
 16 παντὸς ἐτέρου τὰς ἐπιχειρήσεις αὐτοῦ διαλύοντος.
 οὐκ ἄρα τέχνη ἐστὶν ἡ ρητορικὴ. εἴπερ τε ἐνδέχεται
 γενέσθαι ρήτορα μὴ μετασχόντα τῆς ρητορικῆς
 τέχνης, οὐκ ἂν εἴη τις τέχνη ρητορικὴ. ἐνδέχεται
 δὲ γε ἰκανῶς καὶ κατὰ τρόπον ρητορεύειν μὴ
 μετασχόντα ρητορικῆς, ὡς καὶ περὶ Δημάδου
 παρειλήφαμεν· κωπηλάτης γὰρ ὢν ὁμολογεῖται
 ἀριστος γεγονέναι ρήτωρ, καὶ σὺν τούτῳ ἄλλοι
 παμπληθεῖς. τοίνυν οὐκ ἔστι τέχνη ἡ ρητορικὴ.
 17 ἄλλως τε καὶ ἐπεὶ τούτοις ἀπιστοῦμεν ὡς τοιούτοις
 γεγονόσι καὶ ἐν ἔξει κακ² τοιαύτης τινὸς τριβῆς
 ἐπὶ τὸ ρητορεύειν παρεληλυθόσιν, ἀλλ' οὖν γε ἐν
 τῷ καθ' ἡμᾶς βίῳ πολλοὺς πάρεστιν ὄραν λέγοντας
 μὲν εὐφυνῶς ἐπὶ δικαστηρίων καὶ ἐν ἐκκλησίαις,
 τὰ δὲ τεχνικὰ τῆς ρητορικῆς παραγγέλματα μὴ
 18 γινώσκοντας. καὶ ἀντιστρόφως, εἰ οἱ ἐξηκρι-
 βωκότες [ἐπὶ πλείον] καὶ ἐπὶ πλείον ἐκπονήσαντες
 τὸν τεχνικὸν τῆς ρητορικῆς λόγον ἀδυνατοῦσι
 ρητορεύειν ἐπὶ δικαστηρίων καὶ ἀγορᾶς, οὐ ρητέον
 τεχνικὴν μέθοδον εἶναι τὴν ρητορικὴν. ἀλλὰ μὴν
 ὡς ὁ σύμπασις οἶδε βίος, οἱ σοφιστεύοντες ἐπ' ἄκρον
 μὲν τὴν ρητορικὴν ἐξήσκησαν τεχνολογίαν, ἰχθύων
 δὲ ἀφωνότεροι ἐπὶ τῆς ὑπαίθρου θεωροῦνται.

¹ an παν(τελῶς τὸ) τέλος? (καὶ πάγιον τὸ τ. Herv.).

² κακ cj. Bekk.: καὶ mss., Bekk.

if it is an art, will have to profess one or other of these. But it has not an end which is always stable 14 (for it does not always avoid being worsted by the opponents, and sometimes the rhetor proposes one end but finds the resultant end to be different); nor 15 does it attain its end for the most part, since every rhetor, when his own experiences are compared, turns out to have been often defeated rather than victorious, because the opponent constantly rebuts his arguments. Rhetoric, therefore, is not an art.—Also, if 16 it is possible to become an orator without being acquainted with the art of rhetoric, there will be no art of rhetoric. But it is possible to make a speech quite successfully and well without having studied rhetoric, as we have been told in the case of Demades^a; for though he was a boatman, it is agreed that he became a very fine orator; and besides him there are numerous other instances. Hence, rhetoric is not an art.—Moreover, if we do not believe that these men 17 were such as we have described and that they attained to oratory by experience and by practice, yet still we may see many in our daily life who speak admirably in the law-courts and assemblies though they have no knowledge of the technical rules of rhetoric. And conversely, if those who have studied 18 closely and worked hard at the technique of rhetorical speech are incapable of making a speech at the law-courts and assembly, one must deny that rhetoric is a technical method. But in fact, as all the world knows, our lecturers, though they have studied the technology of rhetoric to the utmost point, are seen to be more mute than fishes in open court. Thus none 19

^a Cf. *Adv. Gram.* 295.

19 τοῖνυν οὐ κατὰ τέχνην εἰσὶ τινες ῥήτορες. ὅθεν καὶ γελᾶν ἔστιν ἐπ' αὐτούς, ὅταν πρὸς τοῦτον ἀπολογούμενοι τὸν ἔλεγχον φάσκωσιν ὅτι, ὡς περ αἱ ἀκόνοι τέμνειν μὲν οὐ πεφύκασιν ὀξύνοσαι δὲ τῆν μάχαιραν τέμνειν παρασκευάζουσιν, οὕτω καὶ αὐτοὶ ἀδυνατοῦσι μὲν εἰπεῖν ὑπὸ τῆς ἀηθείας, ἄλλους δὲ διὰ τέχνης προάγοντες λέγειν ποιοῦσιν. οὐκ ἤδεσαν γὰρ οἱ θαυμάσιοι τὴν ἀνομοιότητα ταύτης τῆς εἰκόνας, εἰ γε ἡ μὲν ἀκόνη οὐχ ἦν εἶχε δύναμιν, ταύτην τῷ σιδήρῳ ἐμποικεῖν πέφυκεν, αὐτοὶ δὲ ἐπαγγέλλονται ὡς προηγούμενον ἔργον, ἦν ἔχουσι τέχνην, ταύτην τῷ πέλας περιποιήσιν.

20 Οἱ δὲ περὶ τὸν Κριτόλαον καὶ οἱ ἀπὸ τῆς Ἀκαδημίας, ἐν οἷς ἐστὶ Κλειτόμαχος καὶ Χαρμίδας, εἰώθασιν καὶ οὗτοι τοιαυτὰ τινα λέγειν, ὅτι τὰς μὲν τέχνας οὐκ ἐκβάλλουσιν αἱ πόλεις πάνυ τι βιωφελεῖς οὔσας ἐπιστάμεναι, ὡς οὐδὲ τοὺς μὲν οἰκονομικοὺς τῶν οἰκῶν ἐκβάλλομεν τοὺς δὲ βουκόλους ἐκ τῆς ἀγέλης, τὴν μέντοι ῥητορικὴν πάντες πανταχόθεν ὡς πολεμιωτάτην ἐδίωξαν, ὡς περ ὁ μὲν Κρητικὸς νομοθέτης εἴρξας ἐπιβαίνειν τῆς νήσου τοὺς ἐν λόγῳ ἀλαζονευσαμένους,

21 ὁ δὲ Σπαρτιάτης Λυκούργος, ὡς ἂν ζηλωτῆς Θάλητος τοῦ Κρητὸς γενόμενος, τὸν αὐτὸν τοῖς Σπαρτιάταις νόμον εἰσηγήσατο· παρ' ἣν αἰτίαν πολλοῖς ὕστερον χρόνοις τὸν ἐπὶ ξένης ῥητορικῆν ἐκπονήσαντα νεανίαν ἐπανελθόντα ἐκόλασαν οἱ ἔφοροι, τὴν αἰτίαν προσθέντες τῆς καταδίκης ὡς δολεροῦς λόγους ἐπὶ παρακρούσει τὰς Σπάρτας ἐμελέτησεν. καὶ αὐτοὶ δὲ διέμειναν ῥητορικὴν

22 μισοῦντες, ἀφελεῖ δὲ βραχυλογία χρώμενοι. ὅθεν καὶ ὁ ἀντιχειροτονηθεὶς Ἀθηναῖος ὑπ' αὐτῶν

are orators by reason of art. Hence one may well laugh at them when, in defending themselves against this confutation, they assert that just as whetstones are not made to cut but by sharpening the knife enable it to cut, so also they themselves are incapable of making speeches through want of practice, yet they enable other men to do so by helping them to improve by means of art. For our fine gentlemen failed to notice the lack of similarity in this comparison, in that the whetstone is not of a nature to implant its own quality in the iron, whereas they profess, as their primary task, to convey to their neighbour the art which they themselves possess.

And Critolaüs and the men of the Academy, 20 including Cleitomachus and Charmidas,* are wont to argue like this,—that the cities do not expel the arts knowing them to be extremely useful for life, just as we do not expel skilled domestics from our houses or cowmen from our herds, but all men in every quarter have hunted down rhetoric as most inimical; for example, the Cretan lawgiver forbade those who prided themselves on their oratory to land on his island, and the Spartan Lycurgus, having become an 21 admirer of Thales the Cretan, introduced the same law for the Spartans; and for this reason, many years later, the Ephors punished on his return a young man who had studied rhetoric abroad, alleging as the cause of his condemnation that he practised a deceitful mode of speaking in order to lead Sparta astray. And the Spartans themselves continued to loathe rhetoric and to employ speech which is simple and 22 short. Hence, too, the man whom they had elected 22

* Both disciples of Carneades; cf. vol. i. p. xxxiii.

πρὸς Τισσαφέρην πρεσβευτῆς, τῶν Ἀθηναίων μακρὰς καὶ ποικίλας ῥήσεις διεξιόντων, δύο τῆ βακτηρία γραμμὰς κατὰ τοῦ ἐδάφους χαράξας, τὴν μὲν εὐθείαν καὶ μικρὰν τὴν δὲ ἐπιμήκη καὶ σκολιάν, "τούτων" εἶπεν, "ὦ βασιλεῦ, ὁποτέραν θέλεις ἐλοῦ," αἰνιττόμενος διὰ μὲν τῆς ἐπιμήκου καὶ σκολιᾶς γραμμῆς τὴν τερθρείαν τὴν ῥητορικὴν, διὰ δὲ τῆς βραχείας ἅμα καὶ εὐθείας τὴν ἀφελῆ
 23 καὶ σύντομον εὐθυρρημοσύνην, δι' ἣν οὐκ ἐν οἰκείοις μόνοις ἀλλὰ καὶ ξένοις τὴν ἀπεριττότητα τοῦ λόγου μεταδιώκουσιν. ἐκ μέσων μέντοι γε καὶ τὸν Χίων πρεσβευτὴν περὶ ἐξαγωγῆς πυροῦ δεόμενον, ἐπεὶ μακρῶς ἡρμήνευσε τὴν δέσμη, ἄπρακτον ἐξαπέστειλαν, ἐτέρου δὲ πεμφθέντος συντομωτέρου (ἤπειγε γὰρ ἀνάγκη τοὺς Χίους) ἔδοσαν· κενὸν γὰρ θύλακον αὐτοῖς οὗτος ἀνατείνας ἀλφίτων αὐτὸν ἔφη δεῖσθαι. ὁμῶς δ' οὖν καὶ τοῦτον ὡς ἀδολέσχην ἐμέμψαντο· ἀποχρώντως γὰρ κενὸς δειχθεὶς ὁ θύλακος ἐσήμνηε τὴν τῶν
 24 Χίων αἴτησιν. ἔνθεν ὁ τραγικὸς Ἴων κινήθει εἶπεν ἐπ' αὐτῶν

οὐ γὰρ λόγοις Λάκαινα πυργοῦται πόλις,
 ἀλλ' εὖτ' Ἀρης νεοχμὸς ἐμπέση στρατῷ,
 βουλή μὲν ἄρχει, χεὶρ δ' ἐπέξεργάζεται,

ἄτε βουλευομένων μὲν τὰ κράτιστα, στυγούντων δὲ τὴν ῥητορικὴν. ὅθεν εἰ μὴ τὰς τέχνας ἐκβάλ-
 λουσιν αἱ πόλεις, ἐκβεβλήκασιν δὲ τὴν ῥητορικὴν,
 25 οὐκ ἂν εἴη τῶν τεχνῶν ἡ ῥητορικὴ. τὸ μὲν γὰρ ἀναστρέφειν, καὶ λέγειν ὡς καὶ φιλοσόφους ἐξώ-
 ρισάν τινες τῶν Ἑλληνίδων πόλεων, εὐηθὲς ἐστίν.
 πρῶτον μὲν γὰρ οὐκ ἂν ἔχοιεν τούτῳ παρασχεῖν

by vote as ambassador to Tissaphernes in order to oppose the Athenians, while the Athenians were making long and complicated harangues, drew two lines on the ground with his staff, the one straight and short, the other long and crooked, and said "Choose, O king, whichever of these two you please," with a riddling reference in the long and crooked line to the claptraps of rhetoric, and in the line that was at once both short and straight to simple and concise straightforwardness of speech; and to secure this they aim at speech void of superfluity not only amongst their own people but also amongst foreigners. And when the Chian ambassador made a request for the export of grain, they sent him away out of their assembly empty-handed because he made his request at great length; but when another man was sent who was more concise (for the Chians were hard pressed by necessity), they granted his request; for he held up before them an empty sack and said, "This needs barley-meal." All the same, they censured this man, too, as a chatterbox; for the showing of the empty sack sufficiently indicated the petition of the Chians. Hence, the tragic 24 poet Ion was moved to say about them,—

The battlements of Sparta are not words;
 But when the War-god strikes its host afresh,
 The head doth plan and rule, the hand perform,—

meaning that they are excellent in planning and detest rhetoric. Consequently, if the cities do not expel the arts but have expelled rhetoric, rhetoric will not be one of the arts. For to reverse the argument and allege 25 that some of the Greek cities have also banished philosophers is stupid. For, firstly, they will not be able to

* Cf. Herod. iii. 46.

μαρτυρίαν ὡσπερ ἐπὶ ῥητορικῆς οἱ τοῦναντίον συναγαγόντες· ἔπειτα εἰ καὶ ἐξέβαλόν τινες τῶν πόλεων φιλοσοφίαν, οὐ κατὰ γένος πᾶσαν ἐξέβαλον ἀλλὰ τινὰς αἰρέσεις, οἷον τὴν Ἐπικούρειον ὡς ἡδονῆς διδάσκαλον, τὴν Σωκρατικὴν δὲ ὡς ἐκφωλίζουσιν τὸ θεῖον. αἱ μὲντοι γε προειρημέναι πόλεις οὐ τινὰ μὲν παρητήσαντο ῥητορικὴν τινὰ δὲ προσήκαντο, ἀλλὰ κοινῶς πᾶσαν περιέστησαν.

- 26 Πρὸς γε μὴν τοῖς εἰρημένοις, καὶ εἰ τέχνη πάντως ἐστὶν ἡ ῥητορικὴ, ἤτοι τῷ ἔχοντι ἢ ταῖς πόλεσιν ἔσται χρειώδης ὡς καὶ αἱ λοιπαὶ τῶν τεχνῶν· οὔτε δὲ τῷ ἔχοντι οὔτε ταῖς πόλεσιν ἔστιν ὠφέλιμος, ὡς παραστήσομεν· οὐκ ἄρα τέχνη καθέ-
 27 στηκεν. καὶ δὴ τῷ μὲν ἔχοντι οὐκ ἔστιν ὠφέλιμος, ἐπεὶ πρῶτον μὲν ἐν ἀγοραῖς καὶ γραμματοφυλακείοις ἀναγκαῖόν ἐστι καλινδεῖσθαι, κἄν τε θέλη κἄν τε μὴ θέλη, μετὰ μοχθηρῶν καὶ παλιμβόλων καὶ συκοφαντῶν διατρίβειν, εἰς τοὺς αὐτοὺς ἐκείνοις τόπους κατερχόμενον, εἶτα καὶ τῆς αἰδοῦς ὀλίγην ποιεῖσθαι φειδῶ, ἵνα μὴ εὐκαταφρόνητος
 28 εἶναι δοκῆ τοῖς πανουργοτέροις, θρασέως δὲ λέγειν καὶ τὴν τόλμαν ὡσπερ ὄπλον προβεβλήσθαι, ἵνα φοβερός ἢ τοῖς ἀντιδίκους, ἀπατητικόν τε καὶ γόητα τυγχάνειν καὶ χειρίστοις ἐντεθραμμένον πράγμασι, μοιχείαις τε καὶ κλοπαῖς καὶ ταῖς πρὸς τοὺς γονεῖς ἀχαριστίαις, εἰς τὸ πραγματικῶς ταῦτα
 29 διελέγχειν ὅτε δεῖ, καὶ πάλιν ἐπιθολοῦν, ἔχειν δὲ ἐχθροὺς πολλοὺς καὶ μίσος πρὸς πάντας, τοὺς μὲν ὅτι ἀντηδικήθησαν, τοὺς δὲ εἰδότες ὅτι τοῦ μισθωσαμένου ἔστι, καὶ ὁ ἄλλος διέθηκε, τοῦτο καὶ αὐτοὺς ποτε πλείονι λήμματι δελεασθεῖς

furnish evidence for this, as do those who have come to the opposite conclusion in the case of rhetoric; and secondly, if indeed some of the cities did expel philosophy, they did not expel it all without exception but certain sects such as the Epicurean, as teaching pleasure, and the Socratic, as slighting the Divinity. But the cities mentioned above did not reject one sort of rhetoric and admit another but shunned it all without exception.

In addition to what has been said, if rhetoric is an art at all, it will be of use either to its possessor or to the cities, like the rest of the arts; but it is not of use either to its possessor or to the cities, as we shall establish; therefore it is not an art. Now to its possessor it is not useful, since, firstly, 27 he is compelled—whether he wishes or not—to spend his time at the assemblies and record offices, and to consort with knavish and double-dealing slanderers by going down to the same places as they; and, secondly, he has to be very sparing of modesty, lest he should seem to the more unscrupulous to be a contemptible fellow; and he has to speak out boldly 28 and thrust his audacity before him like a spear, so as to be terrible in the eyes of his opponents, and to be a cheat and a juggler and reared up amidst the worst kinds of conduct,—adulteries and thefts and acts of ingratitude towards parents,—so as to expose them, when necessary, in a practical way, or again to becloud them; he must also have many enemies and 29 hatred towards them all,—some because they have suffered retaliation, others because they are aware that it is the habit of one who has been hired, when enticed by a larger fee, to treat themselves in the same way that he has treated others. Besides all 30

30 διαθήσει, μετὰ τοῦ διὰ παντός ἀγωνιᾶν καὶ πειρατοῦ τρόπον ὅτε μὲν φεύγειν ὅτε δὲ διώκειν, ὥστε κοπούμενον νύκτωρ καὶ μεθ' ἡμέραν ὑπὸ τῶν πράγματα ἔχόντων ὀχλεῖσθαι, μεστὸν δὲ ἔχειν τὸν βίον θρήνων τε καὶ δακρύων, καὶ τινῶν μὲν εἰς δεσμωτήριον τινῶν δὲ ἐπὶ τύμπανον ἀπαγομένων. ὥστε τῷ μὲν ἔχοντι ἐπιβλαβῆς ἢ ῥητορικὴ.

31 Καὶ μὴν οὐδὲ ταῖς πόλεσιν ἔστιν ὠφέλιμος· οἱ γὰρ νόμοι πόλεων εἰσι σύνδεσμοι, καὶ ὡς ψυχὴ σώματος ἐκφθαρέντος φθείρεται,¹ οὕτω νόμων ἀναιρεθέντων καὶ αἱ πόλεις διόλλυνται. παρὸ καὶ ὁ θεολόγος Ὀρφεὺς τὸ ἀναγκαῖον αὐτῶν ὑποφαίνων φησὶν

ἦν χρόνος ἠνίκα φῶτες ἀπ' ἀλλήλων βίον εἶχον
σαρκοδακῆ, κρείσσων δὲ τὸν ἥττονα φῶτα
δαίζειν—

32 μηδενὸς γὰρ ἐπιστατοῦντος νόμου ἕκαστος ἐν χερσὶ τὸ δίκαιον εἶχε, καὶ ὡς

ἰχθύσι (μὲν) καὶ θηρσὶ καὶ οἰωνοῖς πετεηνοῖς
ἐπιτέτραπται

ἔσθην ἀλλήλους, ἐπεὶ οὐ δίκη ἔστι μετ' αὐτοῖς—

μέχρις οὗτο ὁ θεὸς οἰκτείρων μογοῦσιν αὐτοῖς
θεσμοφόρους θεὰς ἐξαπέστειλεν, ἃς ἐπὶ τῷ τῆν
ἀλληλοφάγον ἀνομίαν καταλῦσαι πλέον ἢ ἐπὶ τῷ
καρποῖς ἡμερῶσαι τὸν βίον ἐθαύμασαν ἄνθρωποι.

33 ἐντεῦθεν καὶ οἱ Περσῶν χαριέντες νόμον ἔχουσι
βασιλέως παρ' αὐτοῖς τελευτήσαντος πέντε τὰς
ἐφεξῆς ἡμέρας ἀνομίαν ἄγειν, οὐχ ὑπὲρ τοῦ δυσ-
τυχεῖν ἀλλ' ὑπὲρ τοῦ ἔργῳ μαθεῖν ἡλίκον κακόν

¹ ψυχῆς σώματος ἐκφθάρσεως (ἄνθρωπος) φθείρεται cf. Bekk.

this, he must be engaged continually in contests and, like a pirate, now be fleeing and now pursuing, so that he is wearied and worried night and day by those in trouble, and has his life filled with tears and lamentations, as some are led away to prison and others to the whipping-post. Thus rhetoric is injurious to its possessor.

Furthermore, it is not useful to cities either. For 31 the laws are what bind cities together, and as the soul perishes when the body has perished, so the cities are destroyed when the laws are abolished. Hence, the theologian Orpheus^a hints at their necessity when he says,—

There was a time when every man liv'd by devouring his
fellow
Cannibal-wise, and the stronger man did feast on the
weaker,

(for when no law was in control each man maintained 32
his right by force of hand, even as it is permitted to

Fishes and beasts of the wild and the winged ravens and
vultures,
Each to devour the other, for justice exists not among
them),^b

until God in his pity for their misery sent to them law-bearing goddesses, and men admired these for the way they stopped the lawless cannibalism more than for the way they civilized life by means of the fruits of the earth. Hence, too, the shrewd Persians have a 33 law that on the death of their king they must practise lawlessness for the next five days, not in order to be in a state of misery but in order to learn by experience

^a Cf. *Adv. Phys.* i. 15.

^b Cf. Hesiod, *Op. D.* 275 f.

ἐστὶν ἡ ἀνομία, σφαγὰς καὶ ἀρπαγὰς καὶ εἴ τι
 χεῖρόν ἐστιν ἐπάγουσα, ἵνα πιστότεροι τῶν βασι-
 34 λέων φύλακες γένωνται. ἀλλ' ἢ γε ῥητορικὴ κατὰ
 τῶν νόμων εἰσκεκύνκλῃται. τεκμήριον δὲ παμμέ-
 γεθες τὸ παρὰ μὲν τοῖς βαρβάροις, παρ' οἷς ἢ οὐδ'
 ὄλως ἢ σπανίως ἐστὶ ῥητορικὴ, τοὺς νόμους
 ἀσαλεύτους μένειν, παρὰ δὲ τοῖς προσημένους
 αὐτὴν ὁσημέραι νεοχμοῦσθαι, ὥσπερ καὶ παρ'
 35 Ἀθηναίοις, καθάπερ καὶ Πλάτων ὁ τῆς ἀρχαίας
 κωμωδίας ποιητῆς λέγει· καὶ γὰρ τρεῖς εἴαν τις,
 φησί, ἐκδημῆση μῆνας, οὐκέτι ἐπιγινώσκει τὴν
 πόλιν, ἀλλὰ παραπλησίως τοῖς νυκτὸς περιπατοῦσι
 παρὰ τὰ τείχη καθάπερ τινὰς ἀγγάρους κατὰγεται,¹
 τὸ ὅσον ἐπὶ τοῖς νόμοις μὴ τῆς αὐτῆς οὐσης
 36 πόλεως. πρόδηλον δὲ ἐστὶ τὸ κατὰ τῶν νόμων
 αὐτὴν ὑπάρχειν καὶ ἐξ ὧν ἐν ταῖς κακοτέχνους
 τέχναις ὑποτίθενται. ὅτε μὲν γὰρ παραινοῦσι
 τῷ ῥητῷ καὶ ταῖς φωναῖς τοῦ νομοθέτου προσέχειν
 ὡς σαφέσι καὶ μηδεμιᾶς ἐξηγήσεως δεομέναις,
 ὅτε δὲ ἀναστρέψαντες μῆτε τῷ ῥητῷ μῆτε ταῖς
 37 φωναῖς ἀλλὰ τῇ διανοίᾳ κατακολουθεῖν· οὐδὲ γὰρ
 ὁ κολάζειν ἀξιῶν τὸν ἐπαταεινόμενόν τινα σιδηρον
 τὸν ὅπως οὖν ἐπαταεινάμενον, ὅλον δακτύλον, ἢ
 ὅποιον, καθάπερ βελόνην, κολάζειν ἠξίωσεν, ἀλλ'
 εἴαν τὴν διάνοιαν αὐτοῦ πολυπραγμονῶμεν, τὸν
 ἀνδροφονῆσαι τολμήσαντα τεθελῆκεναί τιμωρεῖσθαι.
 38 κελεύουσι δὲ ἐνίοτε καὶ κατὰ ἀποκοπὴν ἀναγινώ-
 σκειν τοὺς νόμους καὶ ἐκ τῶν λειπομένων ἕτερόν
 τι νόημα συντιθέναι. πολλάκις δὲ καὶ ἀμφιβόλους
 λέξεις διαστέλλουσι, πρόσφορον ἑαυτοῖς κατα-

¹ κατὰγεται cj. Bekk. : κατὰγεσθαι mss., Bekk.

how great an evil lawlessness is, inflicting, as it does,
 murders and rapine and things which are, if possible,
 worse, so that they may become more trusty guardians
 of their kings. But rhetoric was brought to the front 34
 in opposition to the laws. A very strong proof of this
 is the fact that amongst the barbarians, amongst
 whom there is either no rhetoric at all or very little,
 the laws remain unmoved, whereas amongst those
 who cultivate rhetoric they are altered daily, as is the
 case with the Athenians, as Plato, the poet of the 35
 Old Comedy, affirms.^a For he says that if a man has
 been absent abroad for three months he no longer
 recognizes the city, but on his return (like walkers by
 night) he goes past the walls, as foreign couriers
 might do, since so far as regards the laws it is not the
 same city. And that rhetoric is against the laws is 36
 already plain from the statements they make in their
 mal-artful arts. For at one time they advise us to
 attend to the ordinance and words of the lawgiver as
 being clear and needing no explanation, at another
 time they turn round and advise us to follow neither
 the ordinance nor the words but the intention; for 37
 he who proposes to punish the man who holds an iron
 instrument over anyone does not propose to punish
 the man who holds it over him in any and every way,
 (as, for example, one might hold a ring), or of what-
 ever form if may be (a needle, for instance), but,
 if we inquire closely as to his intention, it is his
 desire to take vengeance on the man who has dared
 to commit murder. And sometimes they bid us cut 38
 out bits as we read the laws, and construct a different
 sense from what remains. Often, too, they make
 distinctions in ambiguous phrases and support the

^a Cf. Meineke, *Com. Gr.* 3 p. 692.

σκευάζοντες τὸ σημαίνόμενον, καὶ ἄλλα μυρία πρὸς ἀνατροπὴν τῶν νόμων ποιοῦσιν. ὅθεν καὶ ὁ Βυζάντιος ῥήτωρ ἐρωτηθεὶς πῶς ὁ Βυζαντιῶν 39 ἔχει νόμος εἶπεν “ὡς ἐγὼ θέλω.” καθὰ γὰρ οἱ ψηφοπαύκται τὰς τῶν θεωμένων ὄψεις δι’ ὄξυχειρίαν κλέπτουσιν, οὕτως οἱ ῥήτορες διὰ πανουργίαν τὰς τῶν δικαστῶν διανοίας ἀμαυρῶσαντες 40 τῷ νόμῳ συγκλέπτουσι τὰς ψήφους. τό γε μὴν τῶν παρανόμων ψηφισμάτων εἶδος οὐδεὶς ἐτόλμησε γράφειν ἀλλ’ ἢ οἱ ῥήτορες. τὸν γοῦν γραφέντα κατὰ Κτησιφώντος Δημοσθένους πολλὰ βοῶν καὶ τερατεύομενος ἤρπασεν. ὅθεν καὶ ὁ Αἰσχίνης “κακὸν ἔθος” φησὶν “εἰς τὰ δικαστήρια παρῆλθεν. ὁ μὲν γὰρ κατήγορος ἀπολογεῖται, ὁ δὲ φεύγων τὴν γραφὴν κατηγορεῖ, οἱ δὲ δικασταὶ ὧν μὴ εἰσὶ κριταί, περὶ τούτων ψηφοφορεῖν ἀναγκά- 41 ζονται.” ἀλλ’ εἰ κατὰ τῶν νόμων ἐστὶν ἡ ῥητορικὴ, πρὸς τῷ μὴ χρησιμεῖν τι καὶ βλαβερὰ καθέστηκεν. οὐ μὴν ἀλλ’ οὐδὲ οἱ δημαγωγοῦντες ῥήτορες ἐπ’ ἀγαθῷ τῶν πόλεων προβαίνουσιν, ἀλλ’ ὃν λόγον ἔχει φαρμακοπώλης πρὸς ἰατρόν, 42 τοῦτον ὁ δημαγωγὸς πρὸς τὸν πολιτικόν. κακοδιδασκαλεῖ γὰρ τοὺς πολλοὺς τὰ κεχαρισμένα λέγων, καὶ διαβολαῖς αὐτοὺς ἐξαλλοτριοῖ πρὸς τοὺς ἀρίστους. λόγῳ μὲν γὰρ καὶ τῷ δοκεῖν ὑπὲρ τοῦ κοινῆ συμφέροντος ὑπισχνεῖται πάντα ποιήσειν, ταῖς δὲ ἀληθείαις ἀπ’ οὐθενὸς ὑγιοῦς τροφὴν πορίζεται, εὐκότῳ τὰς τίθεται, αἶ μικρὸν τοῦ ψωμίσματος τοῖς παιδίοις διδοῦσαι τὸ ὅλον κατα- πίνουσιν.

43 Τοσαῦτα μὲν οὖν καὶ τοῖς Ἀκαδημαϊκοῖς ἐν καταδρομῆς μέρει λέγεται περὶ ῥητορικῆς, ὥστε 208

signification which suits themselves; and they do thousands of other things which tend to the upsetting of the laws. Hence also, the Byzantine orator, when asked “How goes the Byzantians’ law?”, replied “As I choose.” For just as jugglers deceive 39 the eyes of the beholders by their sleight of hand, so the orators by their low cunning blind the minds of the judges to the law and so steal away the votes. More- 40 over, no one except the orators has dared to publish decrees of a kind contrary to the laws. Yet Demosthenes by his loud shouting and talking marvels snatched away the law which indicted Ctesiphon. Hence Aeschines says “—“An evil custom has entered the law-court; for the accuser defends himself, while the defendant acts as accuser, and the jurors are obliged to cast their votes concerning matters of which they are not judges.” But if 41 rhetoric is against the laws, it is not only of no use but actually harmful.—Furthermore, even the demagogic orators do not come forward for the good of the cities, but the demagogue bears to the statesman the relation which the druggist bears to the physician. For 42 he depraves the crowd by his doctrines, using flattering words, and sets them against the better class by his slanders. By word and in seeming he promises to do everything for the public benefit, but in reality he provides nourishment from no wholesome source, like nurses who offer the babes a morsel of the pap and then swallow the whole themselves.

Such, then, are the arguments used by the men of 43 the Academy ^b concerning rhetoric, by way of run-

^a Cf. Aeschin. *Adv. Ctesiph.* 193.

^b Cf. § 20.

εἰ μήτε τῷ ἔχοντι μήτε τοῖς πέλας ἐστὶν ὠφέλιμος, οὐκ ἂν εἴη τέχνη. ἀλλὰ πρὸς ταῦτα ἀπολογούμενοι τινὲς μὲν φασιν ὅτι διττῆς οὐσῆς ῥητορικῆς, τῆς μὲν ἀστείας καὶ ἐν σοφοῖς τῆς δὲ ἐν μέσοις ἀνθρώποις, τὴν κατηγορίαν γεγονέναι οὐ τῆς ἀστείας
 44 ἀλλὰ τῆς τῶν μοχθηρῶν. τινὲς δὲ καὶ ὑποδείγμασι χρῶνται· ὡς γὰρ ὁ τὸν πατέρα τύπτων παγκρατιαστῆς οὐ διὰ τὴν παγκρατιαστικὴν τέχνην γίνεταί πατροτύπτῆς ἀλλὰ διὰ τὴν τῶν τρόπων μοχθηρίαν, οὕτως ὁ ῥητορικὴν ἐξασκήσας, εἰτα πατρίδος αὐτῆ καὶ νόμων χρώμενος οὐ διὰ ῥητορικὴν τοιοῦτός ἐστιν ἀλλὰ διὰ τὴν ἰδίαν πονηρίαν.
 45 λέληθε δὲ τοὺς μὲν πρώτους ὅτι ἄκοντες δεδώκασι τὴν ἀνυπαρξίαν τῆς ῥητορικῆς· μηδεὶν γὰρ εὕρισκομένου σοφοῦ, ἢ σπανίως γε εὕρισκομένου, δεήσει καὶ τὴν ἐν αὐτοῖς ῥητορικὴν ἢ ἀνύπαρκτον
 46 ἢ σπάνιον εἶναι. πρὸς δὲ τοὺς δευτέρους ῥητέον ὅτι ἀνόμιόν ἐστι τὸ παράδειγμα τοῖς ἐν χερσὶ ζητουμένοις· ἢ μὲν γὰρ ἄθλησις οὐχ ὑποδείκνυσι τὴν πρὸς τὸ κακὸν χρήσιν αὐτῆς, οἷον τὴν πατροτυψίαν, ἢ δὲ ῥητορικὴ τοῦθ' ὡς προηγούμενον ἔργον διδάσκει, οἷον πῶς ἂν τὰ μικρὰ μεγάλα ποιήσαιμεν τὰ δὲ μεγάλα μικρά, ἢ πῶς ἂν τὰ μὲν
 47 δίκαια ἀδίκῃ φανείη τὰ δὲ ἀδίκῃ δίκαια. καθόλου δὲ τῆς ῥητορικῆς ἐξ ἐναντίων συνισταμένης λόγων οὐκ ἐνδέχεται τὸν μὲν ἀστεῖον λέγειν ῥήτορα, τὸν δὲ μὴ τοιοῦτον οὐκέτι. ὁποῖος γὰρ ἂν ἦ ὁ ῥήτωρ, πάντως τοὺς ἐναντίους ἐκμελετᾶν ὀφείλει λόγους, ἐν δὲ τοῖς ἐναντίοις ἐστὶ καὶ τὸ ἀδικον· πᾶς ἄρα ῥήτωρ καὶ τοῦ ἀδίκου συναγωνιστῆς ὢν ἀδικός ἐστιν.
 48 Ἄλλὰ ὅτι μὲν οὐ ῥητέον τὴν ῥητορικὴν τέχνην,

ning it down, so that, if it is useful neither to its possessor nor to his neighbours, it will not be an art. But in reply to all this some assert that as there are two forms of rhetoric, the one refined and in use among the wise, the other in use among inferior people, the accusation is not made against the refined kind but against that of the baser class. Some of 44 them, too, use illustrations: just as the pancratiast who beats his father is a father-beater not because of his pancratiastic art but because of his bad morals, so the man who has practised rhetoric and then used it against his country and its laws, does so not because of rhetoric but because of his own wickedness. But 45 the first group of these apologists fail to notice that, against their will, they have granted the nullity of rhetoric; for since the wise man is never, or at least rarely, found, it must follow that the rhetoric in use among the wise is likewise either non-existent or rare. And in reply to the second group one must 46 say that their example is not on a par with the matter now in question, for while athleticism does not suggest the employment of it for mischief, such as father-beating, rhetoric declares this to be its main task,— how, for instance, we are to make small things great and great things small, or how just things may be made to appear unjust, and the unjust just. And in 47 general, as rhetoric consists of opposite statements, one cannot say that the refined speaker is an orator, but the unrefined no longer an orator. For the orator, of whatever sort he may be, must certainly practise himself in contradictory speeches, and injustice is inherent in contradictions; therefore every orator, being an advocate of injustice, is unjust.

From all this it is plain that we must not call 48

ἐκ τούτων συμφανές· τὸ δὲ μετὰ τοῦτο καὶ ἐκ τῆς ὕλης περὶ ἣν ἐστὶ σκοπῶμεν αὐτῆς τὸ ἀνυπόστατον· καίτοι προαποδέδοται ἡμῖν τὸ κεφάλαιον ἐν τῷ πρὸς τοὺς γραμματικούς· εἰ γὰρ περὶ λόγον ἢ ῥητορικὴ πονεῖται, οὔτε δὲ λέξις ἐστὶ τι οὔτε λόγος ἐκ λέξεων συγκείμενος, ὡς ἐπεδείξαμεν, διὰ τὸ οὐ τὰ μέρη μὴ ἔστιν ἀνύπαρκτον εἶναι, ἀκολουθήσει καὶ τὸ τὴν ῥητορικὴν ἀνυπόστατον
 49 ὑπάρχειν. ὅμως δ' οὖν ῥητέον πρῶτον μὲν ὅτι οὐκ εἰ τὸν λόγον ἐξεπώνησεν ἢ ῥητορικὴ, πάντως ἐστὶν ἔντεχνος, ἀλλ' εἰ τὸν συμφέροντα. καθὰ γὰρ φαρμάκων διαφόρων ὄντων, καὶ τῶν μὲν θανασιμῶν τῶν δὲ σωτηρίων, ἢ μὲν ἐν τοῖς θανασιμῶσι ἔξις καταγιννομένη οὔτε τέχνη τίς ἐστὶν οὔτε ἰατρικὴ, ἢ δὲ περὶ τὰ σωτήρια καὶ τέχνη καὶ βιωφελής, οὕτω καὶ λόγων τῶν μὲν συμφερόντων τῶν δὲ βλαπτικῶν ὄντων, εἰ μὴ περὶ τοὺς συμφερόντας ἐστὶν ἢ ῥητορικὴ ἀλλὰ τοὺς βλαβερούς, πρὸς τῷ μὴ εἶναι τέχνη ἔτι καὶ κακοτεχνία γενήσεται. παρεστήσαμεν δὲ γε πρότερον ὅτι βλαπτικωτάτοις ἐνυποδύεται λόγοις· τοῖνυν οὐδὲ
 50 τέχνη καθέστηκεν. καὶ μὴν εἴπερ ἢ συκοφαντικὴ καὶ ἢ ὄχλοκοπικὴ τὸ λέγειν ἐξήσκησαν καὶ οὐκ εἰσὶ τέχναι, δῆλον ὡς καὶ ἢ ῥητορικὴ κατὰ ψιλὸν τὸ ἐκπεπονηκέναι τὴν ἐν τῷ λέγειν δύναμιν ἐξεταζομένη οὐ γενήσεται τέχνη. ἀλλὰ μὴν ἢ συκοφαντικὴ καὶ ἢ ὄχλοκοπικὴ τὸ λέγειν ἐξήσκησαν καὶ οὐκ εἰσὶ τέχναι· τοῖνυν οὐδὲ ἢ ῥητορικὴ.
 51 πρὸς γε μὴν τοῖς εἰρημένοις, οὐδὲ ἴδιον ῥητορικῆς ἐστὶ τοῦτο, ἀλλὰ τὸ κοινὸν παντὸς λογικοῦ μαθήματος· καὶ γὰρ ἰατρικὴ εὖ λέγει περὶ τῶν

rhetoric an art; and in the next place let us infer its unreality from the matter with which it deals. The sum of our argument, in fact, has been given already^a in our treatise *Against the Grammarians*, for if rhetoric has to do with speech, but, as we have shown, neither the word is anything nor the speech composed of words, then, as that object whose parts do not exist is non-existent, it will follow that rhetoric also is non-existent. None the less, we must affirm, 49 firstly, that if rhetoric deals with speech it is not necessarily technical, but only if the speech be beneficial. For just as in the case of drugs, which differ in quality, some being deadly, others salutary, the skill which busies itself with the deadly ones is neither the art of medicine nor any art at all, whereas that which deals with the salutary drugs is both an art and useful for life, so also in the case of speeches, of which some are beneficial, others harmful, if rhetoric is not concerned with the beneficial but with the harmful, besides not being an art it will also be a mischievous artifice. And, in fact, we have already established^b that it masks itself in most harmful speech; so it is not an art.—Moreover, if sycophancy and mob-courting 50 practise speaking but are not arts, it is evident that rhetoric, when examined, will not be an art by reason of the mere fact that it has gained by practice ability in speaking. But, in fact, sycophancy and mob-courting practise speaking and are not arts; neither, then, is rhetoric an art.—In addition to what has been 51 said, speech is not a property confined to rhetoric but is common to every branch of learning which uses words; for the art of medicine^c speaks well con-

^a Cf. *Adv. Gram.* 131 ff.^b Cf. §§ 41 ff.^c Cf. § 8.

ἑαυτῆς θεωρημάτων καὶ μουσικῆ περὶ μουσικῶν. διόπερ ὡς ἐκάστη τούτων οὐκ ἔστιν ἕνεκα τοῦ λέγειν ῥητορικῆ, οὕτως οὐδὲ περὶ ἧς ἔστιν ἡ ζήτησις.

52 Συνελόντι δὲ φάναι, οὐδὲ κατασκευάζει καλὴν λέξιν ἢ ῥητορικῆ. οὐδὲ γὰρ ὑποδείκνυσιν ἡμῖν τὴν εἰς τοῦτο τεχνολογίαν, οἷον ὅτι καλῆ λέξει χρῆται πρῶτον μὲν ὁ μὴ ἐκκλίνων τὰ κατὰ τὴν συνήθειαν λεγόμενα, καθὼς καὶ ἐν τῷ πρὸς τοὺς γραμματικούς ὑπεδείξαμεν, εἶτα καὶ ὁ τοῦ νοουμένου πράγματος ἀσφαλῶς κρατῶν· ῥέμβεται γὰρ ἢ λέξις ἀγνωσμένων τούτων, παρὸ καὶ εἰς τοῦτο ἀποβλέποντες ἀγαθὸν λέγομεν εἶναι ῥήτορα ἕκαστον
53 τῶν ἰδίων ἐπιτηδευμάτων. σὺν δὲ τούτοις καὶ ὁ περιεσκεμμένος τίνες τῶν λέξεων κατὰ τὴν συνήθειαν¹ κείνται καὶ τίνες δοξαστῶς, τὸ ἐκάστῳ πρόσφορον ἀποδίδωσιν. βαλανεῖον μὲν γὰρ ἀνδρεῖον κατὰ τὴν συνήθειαν¹ εἴρηται ἀπὸ τοῦ ἀνδρας λαοῦεν, ὁ δὲ πλούσιος μακάριος καὶ ὁ θάνατος κακὸν τῶν δοξαστῶν· τό τε γὰρ τὸν θάνατον τῶν κακῶν εἶναι καὶ τὸν πλοῦτον τῶν ἀγαθῶν ἀδηλον
54 καὶ δοξαστόν. χρῶτο δ' ἂν καλῶς λέξει καὶ ὁ κατελιθῶς τίνος ἕνεκα τὰς μεταλήψεις ποιούμεθα τῶν λέξεων, ἧτοι ὑπὲρ τοῦ μὴ εὐθυρρημονεῖν, προσκοπὴν φέροντος τοῦ εὐθέος ῥήματος, ἢ ὑπὲρ τοῦ τι σαφηνίζειν, ὡς ὅταν τὸ μὲν αἴτιον εἰς τὸ ποιοῦν μεταλαμβάνωμεν, τὸ δὲ σημεῖον εἰς τὸ
55 δηλοῦν. εἰ μὲν οὖν, ὡς ἔφη, ἐτεχνολογεῖτό τινα περὶ τούτων τοῖς ῥήτορσι, τάχα ἂν καὶ τὸ καλῶς

¹ ἀλήθειαν (bis) cj. Bekk.

cerning its own principles, and that of music concerning those of music. Hence, as none of these is rhetoric in virtue of its speech, neither is the subject of our inquiry.

And, to speak succinctly, rhetoric does not create 52 good speech. For it does not suggest to us the technical rules for it, as for instance that the man who uses good speech is, firstly, he who does not pervert the language in common use (as we have pointed out in our book *Against the Grammarians*),^a and secondly, he who is securely master of the subject in mind; for if the subjects are not understood, the language wanders off the point, and so, in view of this, we say that every man is a good orator about his own pursuits. Besides this, the person who has carefully 53 considered which of the words are employed according to common usage, and which have their source in (personal) opinion, attributes its due to each. Thus "a bath" is called ἀνδρεῖον according to common usage from the fact that it washes ἀνδρας (men)—, but when we say that the rich man is "blessed," or that death is "an evil," these descriptions have their source in opinion; for that death is one of the evils and wealth one of the goods is non-evident and a matter of opinion. He, too, will make a good use of language 54 who has grasped the reason why we substitute one word for another, whether in order to avoid straightforward speech, when the straightforward word causes offence, or in order to make a thing clear, as when we substitute "agent" for "cause," or "indication" for "sign." Now if, as I said, any tech- 55 nical rules on these matters were observed by the orators, they might possibly have derived from

^a Cf. *Adv. Gram.* 189 ff.

λέγειν καὶ τὴν κεκαλλωπισμένην λέξιν ἐκ ῥητορικῆς εἶχον. νῦν δὲ ἐπεὶ ταύτης τῆς θεωρίας οὐ ψαύουσιν, ἢ εἰ ψαύοιεν, οὐ τοί γε κατὰ ῥητορικὴν, λεκτέον μὴ ῥητορικῆς ἴδιον εἶναι τὸ καλλιλεκτεῖν.

56 ἢ τε λέξις καθ' ἑαυτὴν οὔτε καλὴ ἐστὶν οὔτε μοχθηρὰ. τεκμήριον δὲ τὸ τῇ αὐτῇ ὑπὸ μὲν ἀστείου καὶ σεμνοῦ λεγομένη προσκόπτειν ἡμᾶς, ὑπὸ δὲ μίμου γελωτοποιούντος μηδαμῶς. διόπερ ὅταν λέγηται ὁ ῥήτωρ καλῆς λέξεως εἶναι κατασκευαστικός, ἦτοι κατὰ τοῦτο λέγεται καθὸ τὴν τὰ συμφέροντα πράγματα δηλοῦσαν λέξιν κατασκευάζει, ἢ τὴν οἷα ἐστὶν ἢ τοῦ ἐλληνίζειν, ἢ τὴν ἐναργῶς καὶ συντόμως καὶ ἐγκατασκευῶς

57 δηλοῦσαν τὰ πράγματα. οὔτε δὲ καθὸ τὴν τὰ συμφέροντα πράγματα μνηύουσιν οὐδὲν γὰρ ἴσασιν περὶ τούτων τῶν πραγμάτων οἱ ῥήτορες. οὔτε καθὸ τὴν οἷα ἐστὶν ἢ τοῦ ἐλληνίζειν κοινὸν γὰρ ἦν τοῦτο τῶν τῇ συνηθείᾳ καὶ ταῖς ἐλευθέραις τέχναις προσεχόντων. οὔτε καθὸ τὴν σαφῶς καὶ συντόμως καὶ ἐγκατασκευῶς μνηύουσιν τὰ πράγματα· τούναντίον γὰρ περίοδον καὶ ἐπιφώνημα θέλοντες λέγειν οἱ ῥήτορες, καὶ μὴ φωνᾶν φωνάεντι συγκρούειν, καὶ ὁμοιοτέλετον διάνοιαν κατακλίνειν, ἐκκλείονται τῆς σαφοῦς ἅμα καὶ

58 συντόμου τῶν πραγμάτων ἐρμηνείας. οὐκ ἄρα ῥητορικῆς ἐστὶ τὸ κατασκευάζειν καλὴν λέξιν καὶ τὸ εὖ λέγειν. δοθέντος τε τούτου οὐκ ἂν τις ἔλοιτο τὴν τοιαύτην φράσιν, πρῶτον μὲν διὰ τὸ μὴ πίπτειν αὐτὴν εἰς τὴν κοινὴν τοῦ βίου χρῆσιν· οὐδεὶς γὰρ ἡμῶν οὕτω διαλέγεται ὡς οἱ ῥήτορες ἐπὶ τῶν δικαστηρίων, ἐπεὶ καταγελασθήσεται. καὶ αὐτοὶ δὲ ἐκεῖνοι πάντοτε ἐξελθόντες τῆς

rhetoric fine speaking and refined phraseology. But as it is, seeing that they do not touch this subject, or if they touch it it is not because of rhetoric, one must declare that fine speech is not peculiar to rhetoric.— Again, language of itself is neither good nor bad. A 56 proof of this is the fact that the same language which offends us when spoken by a cultivated and solemn person does not offend us in the least when spoken by the jester cracking jokes. Hence, when the orator is said to be capable of framing fine speech, it is either for the reason that he frames speech which expresses profitable things, or speech which is a form of good Greek, or speech which indicates objects clearly, concisely and competently. But it is not for the 57 reason that his speech indicates things of profit; for orators know nothing about those things. Nor is it because his speech is a form of good Greek; for this is also shared by those who keep to customary usage and the liberal arts. Nor is it because his speech indicates objects clearly, concisely and competently; on the contrary, in their desire to give out their well-rounded periods and concluding clauses, and not to let vowel collide with vowel, and to avoid similar sentence-endings, they preclude themselves from expounding things at once clearly and concisely. Therefore it does not belong to rhetoric to produce 58 fine phrasing and good speaking. And, this being granted, no one will choose a style such as theirs, and that because, firstly, it does not fit in with the common practice; for none of us talks as do the orators in the law-courts, since he would be jeered at. And they themselves, when they come away

διατριβῆς καὶ τοῦ ἀγῶνος ἄλλη χρῶνται πρὸς
59 τοὺς πέλας ἐρμηνεῖα. εἶτα καὶ ὡς ἔφην, προσκοπήν ἐμποιεῖ τὸ μετὰ προσοχῆς καὶ ῥητορείας λαλεῖν. μετακτεόν δὲ τὰ πρότερον πρὸς τοὺς ἀναλογιστικοὺς τῶν γραμματικῶν εἰρημένα, καὶ διδασκτέον ὅτι τῇ συνηθείᾳ προσεκτέον μᾶλλον ἔστι θέλοντας εὐ λέγειν ἢ περ τέχνη τινὶ περιεργοτέρα.

60 Τὰ νῦν δὲ μετελθόντες καὶ ἀπὸ τοῦ τέλους τῆς ῥητορικῆς ποιῶμεθα τὰς ἐνστάσεις. πάλιν τοίνυν λεκτέον ὡς εἰ μηδὲν ἔστι ῥητορικῆς τέλος, οὐδὲν ἔστι ῥητορικὴ διὰ τὸ πᾶσαν τεχνικὴν ἔξιν πρὸς τι τέλος λαμβάνειν τὴν ἀναφοράν. οὐχὶ δέ γε ἔστι τι ῥητορικῆς τέλος, ὡς δείξομεν· οὐκ ἄρα ἔστι
61 τέχνη ἢ ῥητορικὴ. οἱ μὲν οὖν πλείστοι καὶ χαρίεντες ἔσχατον οἴονται τῆς ῥητορικῆς ἔργον εἶναι τὸ πείθειν. καὶ γὰρ οἱ περὶ τὸν Πλάτωνα εἰς τοῦτο ἀπιδόντες δύναμιν εἰρήκασιν αὐτὴν τοῦ διὰ λόγων πείθειν, καὶ οἱ περὶ τὸν Ξενοκράτην πειθοῦς δημιουργόν, καὶ Ἀριστοτέλης δύναμιν τοῦ θεωρεῖν τὸ ἐνδεχόμενον πιθανόν. καὶ Ἀρίστων ὁ Κριτολάου γνώριμος σκοπὸν μὲν ἐκκείσθαι φησιν αὐτῇ
62 τὴν πειθῶ, τέλος δὲ τὸ τυχεῖν τῆς πειθοῦς. καὶ Ἐρμαγόρας τελείου ῥήτορος ἔργον εἶναι ἔλεγε τὸ τεθὲν πολιτικὸν ζήτημα διατίθεσθαι κατὰ τὸ ἐνδεχόμενον πειστικῶς. Ἀθήναιος δὲ λόγων δύναμιν προσαγορεύει τὴν ῥητορικὴν στοχαζομένην τῆς τῶν ἀκουόντων πειθοῦς, καὶ Ἰσοκράτης φησὶ μηδὲν ἄλλο ἐπιτηδεύειν τοὺς ῥήτορας ἢ
63 ἐπιστήμην πειθοῦς. ὅθεν καὶ ἡμεῖς στοιχοῦντες

from their business and the trial, always use another mode of expression towards their companions. And 59 secondly, talking in a studied and oratorical manner gives offence, as I have said. And one may transfer what has been said already against the Grammarians who rely on analogy,^a and affirm that if we wish to speak well we should pay attention to common usage rather than to any superfluous art.

For the present let us pass on and base our objec- 60 tions on the "end" ^b of rhetoric. So we must state, once again, that if there is no "end" of rhetoric, rhetoric is nothing, because every technical activity has reference to some end. But, as we shall show, rhetoric has no end; therefore rhetoric is not an art. Now most clever people suppose that the ultimate 61 task of rhetoric is persuasion. For Plato, with an eye to this, has said that it is "the ability to persuade by means of speech," and Xenocrates ^c that it is "the creator of persuasion," and Aristotle ^d that it is "the ability to discern the credible which is possible." Ariston, also, the friend of Critolaüs, declares that the professed aim of rhetoric is persuasion, and its end the securing persuasion. And Hermagoras used to say 62 that the task of the perfect orator is to settle the political question proposed as persuasively as possible. And Athenaeus calls rhetoric a power of speech which aims at the persuasion of the audience; and Isocrates asserts that orators pursue nothing else than the science of persuasion. Hence, we too, 63

^a Cf. *Adv. Gram.* 179 ff.

^b "End" in the sense of "aim" or "final cause."

^c But this definition is attributed by Quintilian to Isocrates; and the definition ascribed to Xenocrates in § 6 is different.

^d Cf. *Arist. Rhet.* I. ii. 1.

τῇ τούτων φορᾷ λέγομεν εὐθὺς ὅτι τὸ πιθανὸν
 προσαγορεύεται τριχῶς, καθ' ἓνα μὲν τρόπον
 ὅπερ ἐναργῶς τε ἀληθές ἐστι καὶ ἀληθοῦς ἐμ-
 ποιῶν φαντασίαν ἐπισπάται ἡμᾶς εἰς συγκατάθε-
 σιν, καθ' ἕτερον δὲ ὅπερ ψευδὸς ἐστι καὶ ἀληθοῦς
 ἐμποιοῦν φαντασίαν ἐπισπάται ἡμᾶς εἰς συγκατά-
 θεσιν (ὅπερ καὶ εἰκὸς ὀνομάζειν εἰώθασιν οἱ
 ῥήτορες ἀπὸ τοῦ εἰκὸς εἶναι τῷ ἀληθεῖ), κατὰ
 δὲ τὸν τρίτον τρόπον τὸ κοινὸν τοῦ τε ἀληθοῦς
 64 καὶ ψεύδους. τσσαυταχῶς δὴ λεγομένου τοῦ
 πιθανοῦ, ἀξιὸν ἐστι πυθέσθαι τῶν ῥητόρων κατὰ
 τί τούτων τῶν πιθανῶν οἴονται τὴν ῥητορικὴν
 τοῦ πείθειν ἐφίεσθαι, καὶ περὶ ποῖον αὐτῶν τεχνι-
 τεύειν αὐτὴν ἀξιόσιν, περὶ τὸ ἐναργῶς ἀληθές
 ἢ περὶ τὸ εἰκὸς τούτῳ ψεῦδος ἢ ὁ περὶ τὴν ἀμφο-
 65 τέρων κοινότητα στρέφεται. ἀλλὰ περὶ μὲν τὸ
 ἐναργῶς ἀληθές οὐχ οἶόν τε· τοῦτο γὰρ ἐξ αὐτοῦ
 πείθει καὶ ἐπισπάται ἡμᾶς πρὸς συγκατάθεσιν,
 ὥστε παρέλκει τὴν ἐκ ῥητορικῆς ἐπ' αὐτοῦ
 συνισταμένην πειθῶ. καὶ καθάπερ οὐδεμιᾶς δεό-
 μεθα τέχνης πρὸς τὸ πείθεσθαι ὅτι νῦν ἡμέρα ἔστιν
 ἢ ὅτι νῦν ἐγὼ διαλέγομαι, πραγμάτων ὄντων
 ἐναργῶν καὶ αὐτοφωράτων, οὕτως οὐδὲ πρὸς τὸ
 συγκατατίθεσθαι τῷ ἀνδροφόνον εἶναι τὸν ἐπ'
 αὐτοφώρῳ ληφθέντα ἀνδροφόνον χρεῖα ῥητορικῆς.
 66 καὶ ἄλλως, εἰ τοῦ προδήλως ἀληθοῦς, ἢ πιθανὸν
 ἐστι, θεωρητικὴ καθέστηκεν ἢ ῥητορικὴ, πάντως
 καὶ τοῦ ἀπιθάνου γενήσεται θεωρητικὴ· ταυτὶ
 γὰρ κατὰ τὴν ὡς πρὸς ἄλληλα σχέσιν λαμβάνεται,
 καὶ ὧ λόγῳ ὁ τὸ ἀριστερόν κατειληφώς ἐξ ἀνάγκης
 ἐπιβάλλει καὶ τῷ οὐ ἀριστερόν ἐστιν, οὕτως ὁ τὸ
 πιθανὸν ἀληθές διακρίνων ἀπὸ τοῦ μὴ τοιούτου

following in their steps, affirm straightaway that the
 term "credible" (or "probable") is used in three
 senses,^a—in one sense of that which is plainly true
 and which, by implanting an impression of truth,
 draws us on to assent; in another sense of that which
 is false, but which, by implanting an impression of
 truth, draws us on to assent (and this the orators
 are accustomed to call "likely," from the fact that
 it is like the truth); and in a third sense of that
 which shares in truth and falsehood alike. The term 64
 "credible," then, being used in all these ways, it is
 proper to ask the orators in respect of which of these
 "credibles" do they suppose that rhetoric aims at
 persuasion, and to which of them do they claim that it
 addresses itself as an art,—is it to the obviously true,
 or to the false which is like the true, or to that which
 contains both together? But it cannot possibly be to 65
 the obviously true; for this persuades of itself and
 draws us to assent, so that persuasion regarding it
 produced by rhetoric is superfluous. And just as we
 need no art to be persuaded that "now it is day" or
 that "now I am talking," these being obvious and
 self-evident facts, so too there is no need of rhetoric
 to make us assent to the fact that the murderer taken
 in the act is a murderer.—And besides, if rhetoric 66
 has for its object the obviously true, in so far as it is
 credible, it will certainly be also concerned with the
 incredible; for these two are conceived as being
 relative the one to the other, and for the same reason
 that he who comprehends "left" necessarily con-
 ceives also that of which it is "left," he who discerns
 the "credible" which is true possesses knowledge
 also of the "incredible," from the fact of its not being

^a Cf. *Adv. Log.* i. 174.

67 γνῶσιν ἔχει καὶ τοῦ ἀπιθάνου. ἐπεὶ οὖν πᾶν ἀληθές, ὅποιόν ποτ' ἂν ᾖ, ἤτοι πιθανόν ἐστιν ἢ ἀπιθανον, ἀκολουθήσει τὴν ῥητορικὴν παντὸς ἀληθοῦς εἶναι θεωρητικὴν. τῷ δὲ παντὸς ἀληθοῦς εἶναι θεωρητικὴν ἀκολουθήσει τὸ καὶ παντὸς ψεύδους· ᾧ γὰρ λόγῳ ὁ διακριτικὸς τοῦ πιθανοῦ ἐξ ἀνάγκης καὶ τοῦ ἀπιθάνου διακριτικὸς ἔσται, τῷ αὐτῷ καὶ ὁ παντὸς ἀληθοῦς ἐπιγνώμων συνεπιβαλεῖ¹ παντὶ τῷ ἀντικειμένῳ, τουτέστι τῷ ψεύδει. εἰ δὲ τοῦτο, ἔσται ἡ ῥητορικὴ γνῶσις ἀληθῶν τε καὶ ψευδῶν. οὐ πάνυ δέ γε τοῦτο· τοῖνυν οὐδὲ τοῦ αὐτόθεν ἀληθοῦς ἐστὶ θεωρητικὴ.

68 καὶ μὴν τοῖς ἀντικειμένοις συναγορεύει ἐπαγγέλλεται, τὰ δὲ ἀντικείμενα οὐκ ἔστιν ἀληθῆ· οὐκ ἄρα τοῦ ἀληθοῦς ἐφίεται ἡ ῥητορικὴ. καὶ μὴν οὐδὲ τοῦ ψεύδους· οὐδεμία γὰρ περὶ ψεύδος ἴσασται τέχνη, ἀλλ' ἀναγκαῖόν ἐστι τὴν ῥητορικὴν τοῦτο μεταδιώκουσαν ἢ μὴ εἶναι τέχνην ἢ κακοτεχνίαν ὑπάρχειν, μετὰ τοῦ πάλιν τὰς αὐτὰς

69 ὑπαντιάζειν ἀπορίας. εἰ γὰρ περὶ τὸ πιθανόν ψεύδος καταγίνεται, πάντως εἴσεται καὶ τὸ ἀπιθανον. ἐπεὶ οὖν πᾶν ψεύδος ἤτοι πιθανόν ἐστιν ἢ ἀπιθανον, παντὸς ψεύδους ἐπιστήμη γενήσεται, καὶ διὰ τοῦτο καὶ παντὸς ἀληθοῦς, ὥστ' αὐτὴν μὴ διαφέρειν τῆς διαλεκτικῆς· ὁ κατὰ πολλοὺς

70 τρόπους ἐστὶν ἀποπον. οὐ μὴν ἀλλ' εἰ τῶν ἀντικειμένων συνήγορος καθέστηκε, τὰ δὲ ἀντικείμενα οὐκ ἔστι ψευδῆ, οὐκ ἂν εἴη ψεύδους θεωρητικὴ. εἶτι εἴπερ εἰκὸς ἐστὶ τὸ τὰς πλείστας ἀφορμὰς εἰς τὸ ἀληθές εἶναι παρεχόμενον, καὶ παράλογον, ὃ δὴ τούτῳ ἀντίκειται, τὸ ὀλίγας ἀφορμὰς καὶ

¹ συνεπιβαλεῖ cj. Bekk. : συνεπιβάλλει mss., Bekk.

of the same character. Since, then, everything true, 67 of whatsoever sort it be, is either credible or incredible, it will follow that rhetoric is concerned with everything true. But from its concern with everything true will follow its concern with everything false as well; since, for the reason that he who can discern the credible will necessarily be able to discern also the incredible, for the same reason he who has knowledge of everything true will also perceive therewith everything of the contrary sort, that is to say, false. And if this is so, rhetoric will be the knowledge of things true and false. But this is certainly not so; hence, rhetoric has not the self-evidently true for its object.—Moreover, it professes 68 to advocate opposite causes, but opposites are not (both) true; therefore rhetoric does not aim at the true.—Nor yet at the false; for no art of the false exists, but it is necessary that rhetoric, if it pursues this, must either not be an art or be an evil technique, besides being confronted again with the same difficulties. For if it is concerned with 69 the credible falsehood, it will certainly know also the incredible. Since, then, every falsehood is either credible or incredible, it will be the knowledge of everything false and therefore also of everything true, so that it does not differ from dialectic; and this is in many ways absurd. If, however, it advo- 70 cates opposites, and opposites are not (both) false,^a it will not have the false for its object.—Further, if the “likely” is that which furnishes the most numerous grounds for supposing it to be true, and its opposite, the “improbable,” that which furnishes

^a i. e. of contradictory propositions one must be true.

σπανίους ἔχον εἰς τὸ ἀληθές εἶναι, πάντως ἢ
 ῥητορικῇ εἰς τὸ ἐναντίον ἐπιχειροῦσα οὐ μᾶλλον
 71 τοῦ εἰκότος ἢ τοῦ ἀντικειμένου στοχάζεται. καὶ
 μὴν οὐδὲ τὸ κοινὸν τοῦ τε ἀληθοῦς καὶ ψεύδους
 μεταδιώκει· ἐν τούτῳ γὰρ καὶ ψεύδος κατεπέ-
 πλεκτο. ἄτοπόν τε καθεστήκει τὸ τέχνην ψευδέσι
 χρῆσθαι, σὺν τῷ κατὰ τὸν προὑποδεδειγμένον
 τρόπον ἀκολουθεῖν τὸ καὶ ἐπιστήμην αὐτὴν ἀληθῶν
 τε καὶ ψευδῶν γίνεσθαι, τοῦ πράγματος μὴ οὕτως
 ἔχοντος. ἀλλ' εἰ μήτε ἀληθές μήτε ψεύδος μήτε
 τὸ κοινὸν ἀμφοτέρων θεωρεῖν δύναται ἢ ῥητορικῇ,
 παρὰ δὲ ταῦτα οὐδὲν ἐστὶ πιθανόν, οὐκ ἂν εἴη
 ῥητορικῆς τὸ πείθειν.

72 Ἡμεῖς μὲν οὖν ταύταις ἀξιούμεν ταῖς ἐνστάσεσι
 χρῆσθαι πρὸς τοὺς ῥήτορας, ἄλλοι δὲ καὶ τὰς
 λεχθησομένας εἰώθασιν παραλαμβάνειν, αἷς ἐξέσται
 τῷ βουλομένῳ χρῆσθαι. φασὶ γάρ, ἤτοι τέχνη
 ἐστὶν ἢ ῥητορικῇ ἢ οὐκ ἐστὶν. καὶ εἰ μὲν μὴ ἐστὶ,
 μηδὲ τέλος αὐτῆς ζητῶμεν· εἰ δὲ ἐστὶ, πῶς κοινὸν
 ἔχει τέλος καὶ τοῦ μὴ ῥήτορος; τὸ γὰρ πείθειν
 πολλοῖς πάρεστι διὰ πλοῦτον ἢ κάλλος ἢ δόξαν,

73 ὡς πρότερον ὑπεδείκνυμεν. ῥηθέντων τε πολλὰκις
 τῶν λόγων καὶ ἐπ' αὐτοῖς πεπεισμένων τῶν
 δικαστῶν οὐδὲν ἦττον προσμένουσιν οἱ ῥήτορες,
 ἕτερόν τι ἀπεκδεχόμενοι τέλος, καὶ προσμένοντες
 δέονται. οὐκ ἄρα τὸ πείθειν ῥητορικῆς ἐστὶ τέλος,

74 ἀλλ' εἰ ἄρα, τὸ μετὰ τοῦτο ἐπακολουθοῦν. ἄλλως
 τε καὶ ἐναντίως ἐστὶν ὁ ῥητορικὸς λόγος πειθοῖ.
 πρῶτον μὲν γὰρ περιέργος καθέστηκεν, προσκό-
 75 πησται δὲ οἱ πολλοὶ τῇ τοῦ λόγου περιεργίᾳ· εἴτα
 ὁ ἀσαφὴς λόγος οὐκ ἐστὶ πειστικός, ὁ δὲ τῶν

few and rare grounds for supposing it to be true, then
 rhetoric, since it argues both ways, certainly aims at
 the "likely" no more than at its opposite.—Nor 71
 again does it pursue after that which shares in both
 truth and falsehood; for this implies falsehood.
 And that an art should employ falsehoods is absurd,
 besides the fact that—according to our previous
 demonstration—it becomes in consequence the science
 of things true and false, which is not the case. But
 if rhetoric cannot have for its object either the true
 or the false or that which includes both, and besides
 these there is no other "credible," then persuasion
 will not belong to rhetoric.

These, then, are the objections which we deem it 72
 proper to use against the Orators, but others^a are
 accustomed to adduce those which shall now be
 stated, and which anyone who likes will be able to
 use. They argue thus: Rhetoric either is or is not
 an art; and if it is not, let us not seek for its "end";
 but if it is, how can it have an end which is shared by
 the non-rhetorician? For it is in the power of many
 to persuade by means of wealth or beauty or glory,
 as we previously indicated.^b—Moreover, often, when 73
 the speeches have been made and the judges in
 consequence persuaded of the facts, the Orators,
 none the less, wait on in expectation of gaining
 some further end, and as they wait they entreat.
 The end of rhetoric, therefore, is not persuasion
 but, if anything, that which follows after it.—
 Again, rhetorical speech is opposed to persuasion. 74
 For, firstly, it is superabundant, and most people
 are offended by its superabundance; and secondly, 75
 speech which lacks clarity is not persuasive, but

^a e.g. Plato (in the *Gorgias*) and Epicurus.

^b Cf. §§ 2, 5.

ῥητόρων λόγος ἐν περιόδοις κείμενος καὶ ἐνθυμή-
 76 ἀπο τῆς ῥητορικῆς ἐστὶ λόγος. ὁ τε εὐνοίαν τοῖς
 δικασταῖς ἐμποιῶν λόγος, οὗτός ἐστι πειστικός·
 εὐνοίαν δὲ ἐμποιεῖ οὐχ ὁ ῥητορικός ἀλλ' ὁ ἀφελῆς
 καὶ τὸν ιδιωτικὸν ὑποφαίνων τύπον. τῷ μὲν γὰρ
 τοῦ ῥήτορος ἀντίκεινται πάντες ταῖς ὑπεροχαῖς
 φθονοῦντες· κἂν γὰρ δίκαια κατασκευάζῃ ὁ ῥήτωρ,
 δοκοῦσι μὴ διὰ τὴν τῶν πραγμάτων φύσιν ἀλλὰ διὰ
 τὴν τοῦ ῥήτορος πανουργίαν τὰ μὴ δίκαια τοιαῦτα
 77 αὐτοῖς φαίνεσθαι· τῷ δὲ τοῦ ιδιώτου ὡς ἀσθενεῖ
 πῶς τις συναγωνίζεται, καὶ τῷ ἥττον δίκαιον
 προσδοξάζει τὸ μᾶλλον δίκαιον διὰ τὸ ὑπὸ ἀφε-
 λούς καὶ ιδιώτου κατασκευάζεσθαι. παρ' ἣν
 αἰτίαν Ἀθηναῖοις τὸ παλαιὸν οὐκ ἐπετέτραπτο
 συνήγορον παρίστασθαι τοῖς κρινομένοις ἐπὶ τῆς
 ἐν Ἀρείῳ πάγῳ βουλῆς, ἀλλ' ἕκαστος ὡς εἶχε
 δυνάμεως, ἀδιαστρόφως καὶ ἀπανούργως ὑπὲρ
 78 ἑαυτοῦ τοὺς λόγους ἐποιεῖτο. καὶ μὴν εἶπερ
 ἐπίστευον αὐτοῖς οἱ ῥήτορες ὅτι πειστικὴν ἔχουσι
 δύναμιν, ἐχρῆν αὐτοὺς μῆτε ἔλεον μῆτε οἴκτους
 μῆτε ὀργὰς ἢ ἄλλα τινα τοιαῦτα κινεῖν, ἅπερ
 πείθει μὲν οὐδαμῶς, παραλογίζεται δὲ τὴν τῶν
 δικαστῶν γνώμην καὶ ἀντισκοτεῖ τῷ δίκαιῳ.

Ἄλλ' ὅτι μὲν οὐκ ἐνδέχεται τὸ πείθειν τέλος
 79 εἶναι ῥητορικῆς, δέδεικται· τινὲς δὲ τοῦτο μὲν οὐ
 λέγουσιν αὐτῆς τέλος, τὸ δὲ τοὺς ἐνδεχομένους
 εὐρεῖν λόγους, οἱ δὲ τὸ δόξαν ἐμποιεῖν τοῖς δικα-
 σταῖς περὶ τῶν πραγμάτων οἶαν οἱ λέγοντες
 θέλουσιν, ἄλλοι δὲ τὸ συμφέρον, τινὲς δὲ τὸ νικᾶν.
 80 ὧν πρὸς μὲν τοὺς πρώτους ῥητέον ὡς εἶπερ τοὺς

the speech of the Orators, which consists of periods and enthymemes, is inferior in clarity. There-
 fore the speech derived from rhetoric is not per-
 76 suasive.—Further, the speech which arouses goodwill
 in the judges is that which is persuasive; but what
 arouses goodwill is not the rhetorical speech but
 that which is simple and reflects the ordinary style.
 For to the style of the Orator all those who detest airs
 of superiority are opposed. For even if the Orator
 maintains what is just, they imagine that unjust
 things seem to them just, not because of the real
 nature of the things but because of the trickery of
 the orator. But with the common man's speech 77
 everyone sympathizes, feeling its weakness, and
 attributes greater justice to that which is less just
 because it is maintained by a plain and ordinary
 person. And for this reason the Athenians, in olden
 days, were not allowed to have an advocate to support
 those on trial at the court of the Areopagus, but each
 man, to the best of his ability, made a speech in his
 own defence without trickery or verbal jugglery.—
 Moreover, if the Orators believed their own statement 78
 that they possess a power of persuasion, they ought
 not to excite pity or lamentation or indignation, or
 other feelings of that sort—things which do not
 persuade at all but pervert the minds of the judges
 and obscure justice.

Thus it has been shown that the "end" of
 rhetoric cannot be persuasion; and some say that 79
 its end is not this but the discovery of appropriate
 words; others, that it is to implant in the judges
 an opinion about the facts such as the speakers
 wish; others, that it is the advantageous; and
 some that it is victory. In reply to the first of 80

ἔνδεχομένους εἰς τὰς ὑποθέσεις λόγους εὐρεῖν
 ἐπαγγέλλεται ἢ ῥητορικῆ, ἥτοι τοὺς ἀληθεῖς ἢ
 δυνατοὺς ῥηθῆναι ἐπαγγέλλεται. οὔτε δὲ τοὺς
 ἀληθεῖς· κανόνα γὰρ καὶ κριτήριον τῆς τῶν ἀληθῶν
 καὶ ψευδῶν διαγνώσεως αὐτοὺς ἔχειν δεῖ, ὅπερ
 οὐκ ἔχουσιν· οὔτε τοὺς δυνατοὺς ῥηθῆναι· ἀγνοοῦν-
 τες γὰρ τοὺς ἀληθεῖς οὐδὲ τοὺς δυνατοὺς ῥηθῆναι
 81 ἐπιγνώσονται. οὐκ ἄρα ῥητορικῆς ἐστὶ τὸ τοὺς
 ἐνότας καὶ δυνατοὺς εὐρίσκειν λόγους. ἢ τε
 ῥητορικῆ οὐδὲν ἄλλο ἐστὶν ἢ τὸ τοὺς ἔνδεχομένους
 εὐρεῖν λόγους, ὅθεν ὁ τοῦτο λέγων τέλος δυνάμει
 τῆν ῥητορικὴν τέλος εἶναι λέγει τῆς ῥητορικῆς.
 82 οὐ τε χάριν ἅπαντὰ φησι πράσσειν ὁ ῥήτωρ,
 ἐκεῖνο ἂν τέλος εἴη· οὐχὶ δέ γε χάριν τῶν ἐν-
 δεχομένων ἐπιχειρήσεων πάντα πράσσει ὁ ῥήτωρ,
 ἀλλὰ τοῦ μετὰ τὰς ἐπιχειρήσεις ἐπακολουθοῦντος·
 83 τοῖνυν οὐκ ἂν εἴη τέλος ἐκεῖνο. καὶ μὴν οὐπερ
 δεῖται τέλους τυχεῖν ὁ ῥήτωρ, τούτου καὶ ὁ μισθω-
 σάμενος αὐτὸν ιδιώτης· τοῦ δέ γε τοὺς ἔνδεχο-
 μένους εὐρεῖν λόγους οὐ σπεύδει τυχεῖν ὁ ιδιώτης,
 ἀλλ' ἐτέρου τινός· ἐκεῖνο ἄρα τέλος γενήσεται,
 84 καὶ οὐ τὸ τοὺς ἔνδεχομένους λόγους εὐρεῖν. καὶ
 μὴν οὐδὲ τὸ δόξαν ἐμποιεῖν τοῖς δικασταῖς περὶ
 τῶν πραγμάτων οἷαν οἱ λέγοντες θέλουσιν· τοῦτο
 γὰρ οὐ διήνεγκε τοῦ πείθειν, ἐπεὶπερ ὁ πεπεικῶς
 δόξαν ἐμπεποίηκε τοῖς δικασταῖς περὶ τῶν πραγ-
 μάτων οἷαν οὗτος θέλει. εἰδείξαμεν δὲ ἡμεῖς ὅτι
 οὐκ ἔστι τῆς ῥητορικῆς τέλος τὸ πείθειν, ὥστε
 85 οὐδὲ τὸ δόξαν ἐμποιεῖν. ἀλλὰ μὴν οὐδὲ τὸ συμ-
 φέρον, ὡς ἡξιώκασί τινες· ὃ τι γὰρ τοῦ μέρους

• Cf. P.H. ii. 14 ff., Adv. Log. i. 29 ff.

these we must say that if rhetoric professes to
 discover words pertinent to the assumptions, it pro-
 fesses to speak either true or possible words. But not
 such as are true; for they must possess a standard
 and criterion^a for distinguishing the true and the
 false, and that they do not possess; nor yet such as
 it is possible to speak; for not knowing the true
 words, neither will they know those which it is
 possible to speak. Therefore it does not belong to
 81 rhetoric to discover words which are pertinent and
 possible.—Again, rhetoric is nothing else than the
 discovery of appropriate words; accordingly, he who
 states this “end” is virtually stating that rhetoric
 is the end of rhetoric.—Also, that for the sake of
 82 which the orator declares that he does everything
 will be his end; but the orator does not do every-
 thing for the sake of the appropriate arguments, but
 for the sake of that which follows after the arguments;
 the former, then, will not be his end.—Moreover, the
 83 end which the orator needs to attain is that which
 the private person who hired him also needs; but
 the private person is not eager to attain the discovery
 of appropriate words, but something else; this latter,
 then, and not the discovery of appropriate words, will
 be the end.—Furthermore, neither will the end be
 84 the implanting in the judges such an opinion regard-
 ing the case as the speakers desire; for this does not
 differ from persuasion, since he that has persuaded
 has implanted in the judges such an opinion regarding
 the case as he himself desires. But we have shown^b
 that persuasion is not the end of rhetoric; neither,
 then, is implanting an opinion.—Nor, again, is “the
 85 advantageous,” as some have assumed^c; for that

• Cf. §§ 73 ff.

• Cf. § 79.

ἐστὶ τέλος, τοῦτο οὐκ ἂν εἴη τοῦ ὅλου τέλος· μέρους δέ γε τῆς ῥητορικῆς τοῦ συμβουλευτικοῦ τέλος λέγουσιν οἱ ῥήτορες εἶναι τὸ συμφέρον· οὐκ ἄρα τῆς ὅλης ῥητορικῆς ἐστὶ τέλος. ὅπερ τε πάσης τέχνης ἐστὶ τέλος κοινῶς, τοῦτο οὐκ ἂν εἴη τῆς ῥητορικῆς μόνης· τὸ συμφέρον δέ γε πάσης τέχνης ἐν τῷ βίῳ τέλος ἐστίν· οὐκ ἄρα τῆς ῥητορικῆς
 86 ἰδιαίτερον καθέστηκεν. λείπεται οὖν τὸ νικᾶν αὐτῆς εἶναι τέλος. ὁ πάλιν ἀδύνατόν ἐστιν. ὁ γὰρ πολλάκις μὴ τυγχάνων τοῦ κατὰ γραμματικὴν τέλους οὐκ ἂν εἴη γραμματικός, καὶ ὁ πολλάκις μὴ τυγχάνων τοῦ κατὰ μουσικὴν τέλους οὐκ ἂν εἴη μουσικός. τοίουν καὶ ὁ μὴ τυγχάνων πολλάκις τοῦ κατὰ ῥητορικὴν τέλους οὐκ ἂν εἴη ῥήτωρ.
 87 ὁ δέ γε ῥήτωρ πλειονάκις¹ [μᾶλλον] ἢ νικᾷ νικᾶται, καὶ τοσοῦτω πλειονάκις² ὅσω δυναμικώτερός ἐστι, τῶν τὰ ἀδίκῃ ἐχόντων πράγματα ἐπ' αὐτὸν συντρεχόντων. οὐκ ἄρα ῥήτωρ ἐστὶν ὁ ῥήτωρ. ὁ τε μὴ τυχών τοῦ κατὰ ῥητορικὴν τέλους οὐκ ἂν ἐπαινοῦτο, ῥήτορα δὲ ἐνίοτε νικηθέντα ἐπαινοῦμεν· οὐκ ἄρα ῥητορικῆς τέλος ἐστὶ τὸ νικᾶν.
 88 Ὡστε εἰ μήτε ὕλην ἔχει ἢ ῥητορικὴ περὶ ἣν τεχνιτεύει, μήτε τέλος ἐφ' ὃ ἀνάγεται, οὐκ ἂν ὑπάρχοι ἢ ῥητορικὴ· οὔτε δὲ ὕλην ἔχει οὔτε τέλος, καθὼς παρεστήσαμεν· οὐκ ἄρα ὑπάρχει ἢ ῥητορικὴ.
 89 Ἐπαπορήσειε³ δ' ἂν τις αὐτοῖς καὶ ἀπὸ τῶν μερῶν αὐτῆς. μέρη δὲ λέγουσι ῥητορικῆς τὸ δικανικόν τε καὶ συμβουλευτικόν καὶ ἐγκωμιστικόν, τούτων δὲ τοῦ μὲν δικανικοῦ τέλος εἶναι τὸ δίκαιον, τοῦ δὲ συμβουλευτικοῦ τὸ συμφέρον,

which is the end of a part will not be the end of the whole; but the Orators say that "the advantageous" is the end of the deliberative part of rhetoric; therefore it is not the end of rhetoric as a whole.—Also, that which is the common end of all Art will not be the end of rhetoric alone; but "the advantageous" is the end of all art in our experience; therefore there is no end peculiar to rhetoric.—It remains, then, to say that "victory" 86 is its end; but this again is impossible. For he who often fails to attain the end of the Art of Grammar will not be a grammarian, and he who often fails to attain the end of the Art of Music will not be a musician. So also he who fails often to attain the end of the Art of Rhetoric will not be an orator. But 87 the orator is more often loser than victor, and the more so the more capable he is, as those who have an unjust case join in flocking to him. Therefore the orator is not an orator.—Also, he who fails to attain the end of rhetoric will not be praised; but we sometimes praise an orator when defeated; "victory," then, is not the end of rhetoric.

Consequently, if rhetoric has neither a subject- 88 matter^a which it treats technically nor an end to which it is directed,^b rhetoric will not exist; but, as we have established, it has neither subject-matter nor end; therefore rhetoric does not exist.

One may also raise difficulties for them based on 89 the parts of rhetoric. The parts of rhetoric, they say, are "the juridical, the deliberative and the laudatory," and of these "the juridical" has justice for its end, "the deliberative" has the advantageous,

^a Cf. §§ 48 ff.

^b Cf. §§ 60 ff.

¹ πλειονάκις ἢ cj. Bekk. : πλέον μᾶλλον ὁ mss., Bekk.

² πλειονάκις scripsi : πλέον mss., Bekk. (μᾶλλον cj. Bekk.).

³ ἐπαπορήσειε cj. Bekk. ; ἐναπορήσειε mss., Bekk.

τοῦ δὲ ἐγκωμιστικοῦ τὸ καλόν. ὅπερ εὐθέως
 90 ἄπορόν ἐστιν. εἴπερ γὰρ ἄλλο τι καθέστηκεν ἢ
 δικανικὴ ὑπόθεσις καὶ ἄλλο τι ἢ συμβουλευτικὴ
 καὶ οὐ ταῦτόν ἢ ἐγκωμιστικὴ, πάντως τὸ τέλος
 τῆς δικανικῆς οὐκ ἂν εἴη καὶ τῆς συμβουλευτικῆς
 τέλος, καὶ τὸ ταύτης οὐκ ἔσται τῆς ἐγκωμιστικῆς,
 καὶ ἐναλλάξ. ἐπεὶ οὖν τῆς συμβουλευτικῆς τέλος
 ἐστὶ τὸ συμφέρον, οὐκ ἂν εἴη τοῦτο τῆς δικανικῆς
 τέλος. ἦν δέ γε τῆς δικανικῆς τέλος τὸ δίκαιον·
 91 οὐκ ἄρα τὸ δίκαιόν ἐστι συμφέρον. καὶ πάλιν,
 ἐπεὶ ὡς τὰ μέρη ταῦτα διαφέρει ἀλλήλων, οὕτω
 καὶ τὰ τέλη διοίσει, παρόσον τῆς ἐγκωμιστικῆς
 τέλος ἐστὶ τὸ καλόν, τῆς δὲ δικανικῆς τὸ δίκαιον,
 ἐνδέχεται τὸ καλὸν εἶναι μὴ δίκαιον καὶ τὸ
 92 δίκαιον μὴ καλόν¹. ὅπερ ἄτοπον. καὶ μὴν εἰ τῆς
 ὄλης ῥητορικῆς τέλος ἐστὶ τὸ πείθειν, τοῦ δὲ
 δικανικοῦ τὸ δίκαιον καὶ τοῦ συμβουλευτικοῦ τὸ
 συμφέρον καὶ τοῦ ἐγκωμιστικοῦ τὸ καλόν, οὐ
 πάντως τὸ δίκαιον ἐστὶ πιθανόν, οὐδὲ τὸ συμ-
 φέρον, οὐδὲ τὸ καλόν· ὅπερ μάχεται τῷ διὰ παντὸς
 τὴν ῥητορικὴν ἐφίεσθαι τοῦ πείθειν.
 93 Ἄλλως τε ἐπὶ τοῦ δικανικοῦ ἤτοι διὰ δικαίων
 μόνον λόγων ἔλξει τοὺς δικαστὰς ἐπὶ τὸ τέλος ἢ
 ῥητορικὴ ἢ διὰ τῶν δικαίων ἅμα καὶ ἀδικίων.
 ἀλλ' εἰ μὲν διὰ τῶν δικαίων μόνον, ἀρετὴ γενή-
 σεται· οὐχὶ δέ γε ἀρετὴ ἐστὶν ἢ στοχαζομένη τῆς
 ὀχλικῆς πειθοῦς, ἐν ἣ πολὺ τὸ εἰκαίον καὶ ἐξ-
 απατητικόν· οὐκ ἄρα διὰ τῶν δικαίων μόνον ἐπὶ
 94 τὸ τέλος ἄγειν πέφυκε τοὺς ἀκούοντας. εἴτα οὐδὲ
 συστήσεται ἐξ ἐναντίας λόγος αἰεὶ ποτε τὸ δίκαιον

¹ τῆς δὲ . . . μὴ καλόν Herv. (simil. Fabr.): μὲν εἶναι καὶ τὸ
 δίκαιον καλόν MSS., Bekk.

and "the laudatory" has the noble. But this is at
 once open to doubt. For if the juridical purpose is 90
 one thing, and the deliberative another, and the
 laudatory something different, certainly the end of
 the juridical will not also be the end of the delibera-
 tive, and the end of the latter will not be that of
 the laudatory, and *vice versa*. Since, then, the end
 of the deliberative is the advantageous, this will not
 be the end of the juridical. But the end of the
 juridical is the just; therefore the just is not ad-
 vantageous.—And again, just as these parts differ, 91
 so also the ends will differ; and therefore, inasmuch
 as the end of the laudatory is the noble and that of
 the juridical the just, it is possible for the noble not
 to be just and the just not to be noble; which is
 absurd.—Moreover, if persuasion is the end of rhetoric 92
 as a whole, but the just of the juridical part, and the
 advantageous of the deliberative, and the noble of
 the laudatory, then certainly the just is not per-
 suasive, nor is the advantageous, nor the noble; and
 this conflicts with the notion that rhetoric aims
 wholly at persuasion.

Furthermore, in the case of the juridical part, 93
 rhetoric will draw the jurors towards its end either
 by just speeches only or by unjust as well as by
 just speeches. But if it is by just speeches only,
 it will be virtue; but what aims at the persuasion
 of the crowd is not virtue, for it contains much that
 is rash and misleading; it is not, therefore, of a
 nature to lead the hearers to its end by just speeches
 only.—Moreover, if it always pursues justice, no 94
 contrary argument will be forthcoming, and when

ταύτης μεταδιωκούσης, τοῦ δ' ἐναντίου μὴ ὄντος λόγου οὐδὲ ῥητορικὴ τις γενήσεται, ὥστε οὐδὲ ταύτη τοῖς δίκαιοις μόνον χρήσεται λόγοις. καὶ μὴν οὐδὲ τοῖς ἀδίκοις, ἐπεὶ ἀδικος γενήσεται, καὶ πάλιν τοῦ ἐναντίου μὴ ὄντος λόγου ἀσύστατος ἔσται. λείπεται ἄρα δι' ἀμφοτέρων αὐτὴν βαδίζειν. ὁ πολλῶ τῶν προτέρων ἔστιν ἀποπύτερον ἔσται γὰρ ἅμα ἀρετὴ καὶ κακία, ὁ τῶν ἀδυνάτων καθέστηκεν. οὐ τοίνυν ῥητέον μέρος εἶναι τι ῥητορικῆς δικανικὸν ὁ τέλος ἔχει τὸ δίκαιον.

95 Πρὸς γε μὴν τοῖς εἰρημένοις, εἶπερ ὑποδείξει τὸ δίκαιον τοῖς δικασταῖς ἐν τῷ δικανικῷ μέρει τῆς ῥητορικῆς ὁ ῥήτωρ προτίθεται, ἦτοι αὐτόθεν ἔστι φαινόμενον καὶ ὁμόλογον τὸ δίκαιον ὅπερ ὑποδείκνυσιν, ἢ ἀμφισβητήσιμον. ἀλλὰ φαινόμενον μὲν οὐκ ἂν εἶποιεν· ἐπὶ τούτου γὰρ οὐ συνίσταται ὁ ῥητορικὸς λόγος, ἀναμφισβητήτου

96 καθεστῶτος. λείπεται οὖν τὸ ἀμφισβητήσιμον. ὁ πάλιν ἔστιν ἄπορον· τοσοῦτον γὰρ ἀπέχουσιν οἱ εἰς τούναντίον ἐπιχειροῦντες τὴν ἀμφισβήτησιν λύειν ὡς καὶ ἐκ τῶν ἐναντίων αὐτὴν ἐπισφίγγειν, ἐπιθολοῦντες τὴν τῶν δικαστῶν γνώμην. καὶ τούτου πίστις ἢ περὶ Κόρακος φερομένη παρὰ

97 τοῖς πολλοῖς ἱστορία. νεανίας γὰρ πτόβῳ ῥητορικῆς κατασχεθεὶς προσῆλθεν αὐτῷ τὸν ὀρισθησόμενον ὑπ' αὐτοῦ μισθὸν δώσειν ἐπαγγελλόμενος, ἂν τὴν πρώτην νικήσῃ δίκην. συμφωνίας δὲ γενομένης, καὶ τοῦ μειρακίου ἱκανὴν ἔξιν ἐμφαίνοντος ἤδη, ὁ μὲν Κόραξ ἀπήτει τὸν μισθόν, ὁ δ' ἀντέλεγεν. ἀμφότεροι δὲ παρελθόντες εἰς τὸ δικαστήριον ἐκρίνοντο, ὅτε καὶ πρῶτόν φασι τὸν Κόρακα τοιαύτη τινὶ χρήσθαι ἐπιχειρήσει, λέγοντα ὡς

there exists no contrary speech neither will rhetoric exist, so that on this showing, too, it will not use just speeches only.—Nor, again, will it use unjust speeches, for if so it will be unjust, and as the contrary speech is again non-existent, it will be non-existent. It remains, then, to say that it proceeds by means of both. But this is far more absurd than the former suppositions; for it will be at once virtue and vice, which is a thing impossible. One must, then, deny that there is a juridical part of rhetoric which has justice for its end.

In addition to what has been said, if the orator 95 proposes to explain to the judges what is just by the juridical part of rhetoric, the justice which he explains is either evident of itself and agreed or it is disputable. But they will not say that it is evident; for about this no rhetorical speech is composed, since it is undisputed. It remains, then, to say that it is dis- 96 putable. But this again is open to doubt. For those who argue on opposite sides are so far from settling the dispute that they even intensify it by their contradictions and befog the minds of the judges. And there is evidence for this in the story commonly told about Corax.* A young man seized with a desire for rhetoric 97 went to him and promised that he would pay him the fee he would charge, if he should win his first case. And when the compact was made, and the youth was now displaying sufficient skill, Corax demanded his fee, but the other said "No." Both then repaired to the court and had the case tried; and then, it is said, Corax first used an argument of this kind,—

* Noted Sicilian rhetorician, *circ.* 460 B.C. The same story is told of Protagoras by Diog. Laert. ix. 56.

- εἴαν τε νικήσῃ εἴαν τε μὴ, λαβεῖν ὀφείλει τὸν μισθόν,
 νικήσας μὲν ὅτι ἐνίκησεν, λειψθεῖς δὲ κατὰ τὸν
 τῆς συμφωνίας λόγον· ὠμολόγησε γὰρ αὐτῷ ὁ
 ἀντίδικος ἀποδώσει τὸν μισθὸν εἴαν τὴν πρώτην
 νικήσῃ δίκην, ἣν αὐτόθεν νικήσας ὀφείλει τὴν
 98 ὑπόσχεσιν χρεωλυτεῖν. θορυβησάντων δὲ τῶν
 δικαστῶν ὡς δίκαια λέγοντος αὐτοῦ, παραλαβὼν
 τοὺς λόγους ὁ νεανίας τῷ αὐτῷ ἐπιχειρήματι,
 μηδὲν μεταθείς, ἐχρήτο· “εἴαν τε” γὰρ “νικήσω”
 φησὶν “εἴαν τε νικηθῶ, οὐκ ὀφείλω τὸν μισθὸν
 ἀποδοῦναι Κόρακι, νικήσας μὲν ὅτι ἐνίκησα,
 λειψθεῖς δὲ κατὰ τὸν τῆς συμφωνίας λόγον·
 ὑπεσχόμην γὰρ ἀποδώσειν τὸν μισθὸν εἴαν τὴν
 πρώτην νικήσω δίκην, λειψθεῖς δὲ οὐκ ἀποδώσω.”
 99 εἰς ἐποχὴν δὲ καὶ ἀπορίαν ἔλθόντες οἱ δικασταὶ
 διὰ τὴν ἰσοσθένειαν τῶν ῥητορικῶν λόγων ἀμφο-
 τέρους ἐξέβαλον τοῦ δικαστηρίου, ἐπιφωνήσαντες
 τὸ “ἐκ κακοῦ κόρακος κακὸν ὦόν.”
 100 Οἷος δὲ ἐστὶν ὁ περὶ τοῦ δικανικοῦ μέρους λόγος,
 τοιοῦτος γένοιτ’ ἂν καὶ ὁ περὶ τοῦ συμβουλευτικοῦ,
 ἵνα μὴ μακρηγορῶμεν. τὸ μὲν γὰρ ἐγκωμιαστικόν,
 σὺν τῷ ταῖς αὐταῖς ἀπορίαις ὑπάγεσθαι, ἔτι καὶ
 101 ἀμέθοδόν ἐστίν. ἐπεὶ γὰρ οὔτε πάντες ἄνθρωποι
 ἐγκωμιάζεσθαι θέλουσιν οὔτε ἐπὶ τοῖς αὐτοῖς, δεῖ
 τὸν μέλλοντα καλῶς ἐγκωμιάζειν εἰδέναι τὴν τοῦ
 ἐγκωμιαζομένου διάθεσιν· οὐ πᾶν δέ γε τὸ καθ’
 ἕτερον κίνημα ληπτὸν ἐστὶν ἐτέρῳ. καὶ ἄλλως
 οἱ ῥήτορες οὐ παραδεδώκασι τίνα μέθοδον δι’ ἧς
 εἰσόμεθα τὸ πότε καὶ τίνα ἐγκωμιαστὸν ἐστίν·
 οὐκ ἄρα δυνατόν ἀπὸ ῥητορικῆς ὑγιῶς ἐγκωμιάζειν.
 102 ἦτοι τε ἐπὶ τοῖς μὴ οὖσιν ἀγαθοῖς δοκοῦσι δὲ εἶναι,

that whether he won the case or lost it he ought to
 receive the fee ; if he won, because he had won, and
 if he lost, in accordance with the terms of the com-
 pact ; for his opponent had agreed to pay him the
 fee if he won his first case, so that if he did win it he
 was thereby bound to discharge the debt. And after 98
 the judges had applauded him for speaking justly the
 young man in turn began his speech and used the
 same argument, altering nothing : “ Whether I win,”
 he says, “ or whether I am beaten, I am not bound to
 pay Corax the fee ; if I win, because I have won ; and
 if I lose, in accordance with the terms of the compact ;
 for I promised to pay the fee if I should win my first
 case, but if I should lose I shall not pay.” The judges 99
 then, thrown into a state of suspense and perplexity
 owing to the equipollence of the rhetorical arguments,
 drove them both out of the court, crying “ A bad egg
 from a bad crow ! ”^a

To save a long account we may say that the argu- 100
 ment concerning “ the deliberative ” part will be
 similar to that concerning the juridical. As to the
 “ laudatory,” or eulogistic, part, besides being subject
 to the same doubts, it is also lacking in method. For 101
 since not all men wish to be eulogized, nor on the
 same grounds, he who is going to eulogize well must
 know the disposition of the person who is being
 eulogized ; but not every emotion in one man is
 perceptible by another. Moreover, the Orators have
 not furnished us with any method whereby we may
 know when and whom we ought to eulogize ; it is
 impossible, therefore, to eulogize properly by means
 of rhetoric.—Also, the orator will eulogize on account 102

^a A play on the name Corax, which is the Greek for
 “ carrion-crow ” (or “ daw ”). Cf. the Latin saying “ mali
 corvi malum ovum.”

ἢ ἐπὶ τοῖς κατ' ἀλήθειαν οὖσιν ἐγκωμιάσει ὁ
 ῥήτωρ. οὔτε δὲ ἐπὶ τοῖς μὴ οὖσι, προσδιαφθείρει
 γὰρ τοὺς ἐγκωμιαζομένους, οὔτε ἐπὶ τοῖς οὖσιν·
 ἀγνοεῖ γὰρ ταῦτα, ὅτε καὶ τοῖς φιλοσόφοις διὰ
 τὴν ἀνεπίκριτον περὶ αὐτῶν μάχην ἐστὶν ἀκατά-
 ληπτα. οὐκ ἄρα δύναται τινα ἐγκωμιάζειν ὁ
 103 ῥήτωρ. οἷ τε μὴ εἰδότες ἐφ' οἷς ἐγκωμιαστέον
 ἐστὶν οὐδὲ ἐγκωμιάζειν δύνανται· οἱ δὲ γε ῥήτορες
 οὐκ ἴσασιν ἐφ' οἷς ἐγκωμιάζειν δεῖ, καθὼς παρα-
 στήσομεν· τοίνυν οὐδὲ ἐγκωμιάζειν δυνήσονται.
 ἐγκωμιαστέον γὰρ φασὶν ἀπὸ γένους καὶ κάλλους
 καὶ πλοῦτου καὶ πολυτεκνίας καὶ τῶν εἰοικῶτων,
 ἀνάπαλιν τε ψεκτέον ἀπὸ δυσγενείας καὶ δυσμορ-
 104 φίας καὶ πενιχρότητος. ὅπερ εὐθες· δεῖ γὰρ
 ἡμᾶς ἀπὸ τῶν παρ' ἡμᾶς γινομένων τοὺς ἐπαίνους
 ἔλκειν καὶ ψόγους, εὐγένεια δὲ καὶ εὐτυχία κάλλος
 τε καὶ πολυτεκνία καὶ τὰ τοιαῦτα οὐκ ἔστι παρ'
 ἡμᾶς γινόμενα, ὥστε οὐκ ἐπαινετέον ἀπ' αὐτῶν,
 ἐπεὶ τοί γε εἰ ψιλῶς ἐπαινετέον τὴν εὐγένειάν ἐστι
 καὶ πολυτεκνίαν καὶ πᾶν τοιουτῶδες, ἐπαινετός
 καὶ Βούσιρις καὶ Ἄμυκος καὶ Ἄνταϊος οἱ ξενο-
 κτόνοι, ὅτι Ποσειδῶνος ἦσαν υἱεῖς, ἐπαινετὴ δὲ
 105 καὶ ἡ Νιόβη, ὅτι πολυτέκνος. ἐναντίως τε εἰ ἡ
 ἀμορφία καὶ ἡ πενία ψεκτόν, ψεκτέος μὲν Ὀδυσ-
 σεύς, ὅτι χερνήτου λαβῶν σχῆμα

ἀνδρῶν δυσμενέων κατέδου πόλιν,

ψεκτέος δὲ ὁ Διὸς Περσεύς, ὅτι πήραν περιηρη-

^a Cf. the encomiastic *Busiris* of Isocrates.

of things that are not good but seem so, or else on
 account of things which are really good. But he does
 not do so either on account of things which are not
 good,—for then he is further corrupting the persons
 eulogized,—or on account of those which are ; for of
 these he is ignorant, since even for philosophers they
 are non-apprehensible owing to the unsettled contro-
 versy about them. Therefore the Orator is not able
 to eulogize anyone.—Also, those who do not know
 103 on what account one should eulogize are unable to
 eulogize ; but the Orators do not know on what
 account one ought to eulogize, as we shall demon-
 strate ; hence they will not be able to eulogize. For
 they assert that one should eulogize on the ground
 of birth and beauty and wealth and abundance of
 children, and the like ; and conversely one should
 blame on the ground of low birth and ugliness and
 poverty. But this is silly ; for we ought to attract
 104 praise and blame from things inherent in ourselves,
 but noble birth and good fortune and beauty and
 abundance of children and things of that sort are
 not inherent in ourselves, so that we should not be
 praised on account of them ; for, to be sure, if we are
 to praise unconditionally noble birth and abundance
 of children and everything of that kind, we must
 praise those slayers of guests, Busiris^a and Amycus
 and Antaeus, because they were sons of Poseidon,
 and also praise Niobê because she abounded in
 children. Conversely, if ugliness and penury are to
 be blamed, Odysseus is to be blamed because he took
 105 the form of a beggar^b when

He entered the foemen's city,

and Perseus, the son of Zeus, is to be blamed because

^b Cf. *Hom. Od.* iv. 244 ff.

μένος τὴν ἀνυδρον ᾧδευε Λιβύην, καὶ Ἡρακλῆς, ὅτι λεοντῆν καὶ ξύλον ἐπὶ τοὺς ἄθλους ἐπήγετο.

106 Συνελόντι δὲ φάναι, δεδοσθω ταῦτα μέρη εἶναι τῆς ῥητορικῆς. ἀλλ' ἐπεὶ τὸ δίκαιον, ὅτι ἔστι δίκαιον, καὶ τὸ συμφέρον, ὅτι ἔστι συμφέρον, καὶ τὸ καλόν, ὅτι ἔστι καλόν, ἀποδείξει παρίσταται, καὶ οὐδέν ἐστιν ἢ ἀπόδειξις, οὐδὲ ῥητορικῆ τι γενήσεται ἢ ἐπὶ τοιούτοις μέρεσι συνεστῶσα. ὅτι δὲ οὐδέν ἐστιν ἀπόδειξις, ἀκριβέστερον μὲν δείκνυται ἐν τοῖς σκεπτικοῖς ὑπομνήμασιν, ὑπο-

107 μνηστικώτερον δὲ καὶ νῦν παρασταθήσεται. εἰ γὰρ μηδὲν ὁ λόγος, οὐδὲ ἢ ἀπόδειξις ἔστι, ποιὸς λόγος οὐσα· οὐδέν δέ γέ ἐστι λόγος, ὡς παρεστήσαμεν, διὰ τὸ μήτε ἐν φωναῖς μήτε ἐν ἀσωμάτοις λεκτοῖς ἔχειν τὴν ὑπόστασιν· οὐδὲ ἀπόδειξις ἄρα

108 ἔστιν. ἄλλως τε, εἰ ἔστιν, ἦτοι ἐναργῆς καθέστηκεν ἢ ἀδηλος. οὔτε δὲ ἐναργῆς ἐστίν· ἀδηλον γὰρ τι περιέσχηκε, καὶ διὰ τοῦτο ἔστι διάφωτος, παντὸς τοῦ διαφωνομένου πράγματος ἀδήλου

109 τυγχάνοντος. λείπεται ἄρα ἀδηλον αὐτὴν εἶναι. ἀλλ' εἰ τοῦτο, ἦτοι αὐτόθεν ληφθήσεται ἢ ἐξ ἀποδείξεως. οὔτε δὲ αὐτόθεν ληπτή ἐστίν (ἀδηλος γὰρ ἦν, τὸ δὲ ἀδηλον αὐτόθεν λαμβανόμενον ἄπιστον) οὔτε ἐξ ἀποδείξεως διὰ τὴν εἰς ἄπειρον

110 ἔκπτωσιν· οὐκ ἄρα τις ἔστιν ἀπόδειξις. μὴ οὕσης τε γενικῆς ἀποδείξεως οὐδὲ εἰδικῆς τις ἔσται ἀπόδειξις, ὡσπερ καὶ μὴ ὄντος ζώου οὐδὲ ἀνθρώπου ἔστιν γενικῆ δέ γε ἀπόδειξις οὐκ ἔστιν, ὡς παραστήσομεν τοῖνυν οὐδὲ ἄλλη τις γενήσεται τῶν ἐπ' εἵδους. ἐπεὶ γὰρ ἀδηλὸς ἐστίν, ὡς προεπελογισάμεθα, ὀφείλει διὰ τίνος καταστήσθαι. διὰ

he walked through waterless Libya with a wallet hung round him, and Heracles because he took with him on his labours a lion's skin and a club.

To speak briefly, then, let it be granted that these 106 are the parts of rhetoric. But since the fact that the just is just and that the advantageous is advantageous and that the noble is noble is established by proof, and proof is nothing, neither will rhetoric, which is composed of these parts, be anything. That proof is nothing is shown more precisely in our *Notes on Scepticism*,^a and we shall now establish it more by way of a note or reminder. If speech is nothing, 107 neither does proof exist, being a kind of speech; but speech is nothing, as we have established,^b because it subsists neither in utterance nor in incorporeal *lekta*; therefore proof does not exist.—Further, if it exists it 108 is either evident or non-evident.^c But it is not evident; for it contains something non-evident, and because of this is disputable, as everything in dispute is non-evident. It remains then to say that it is non- 109 evident. But if so, it will be perceived either of itself or after proof. But it is not perceptible of itself (for it is non-evident, and the non-evident, if perceived of itself, is not to be trusted), nor after proof, because of the regress *ad infinitum*; therefore no proof exists.—Further, as generic proof^d does not exist, no specific 110 proof will exist, just as if “animal” does not exist neither does “man” exist; but generic proof does not exist, as we shall establish; so no other, specific, proof will exist. For since it is non-evident, as we previously argued, it must be confirmed by some-

^a Cf. P.H. ii. 134 ff., *Adv. Log.* ii. 299 ff.

^b Cf. *Adv. Gram.* 135 ff.

^c Cf. P.H. ii. 174-182.

^d Cf. P.H. ii. 172

- 111 τίνος οὖν; ἤτοι γὰρ διὰ γενικῆς ἢ εἰδικῆς ἀπο-
 δείξεως. οὔτε δὲ διὰ εἰδικῆς διὰ τὸ μήπω βέβαιον
 εἶναι τὴν τῆς γενικῆς ὑπαρξιν, οὔτε διὰ γενικῆς·
 αὐτὴ γάρ ἐστιν ἡ ἀμφισβητούμενη. οὐ τοίνυν
 ἔστι τις γενικὴ ἀπόδειξις. ὧς ἔπεται τὸ μηδὲ τὴν
 εἰδικὴν ὑπάρχειν. καὶ ἄλλως, ἡ γενικὴ ἀπόδειξις
 εἰ μὲν λήμματά τινα ἔχει καὶ ἐπιφοράν, οὐδὲ
 γενικὴ ἐστίν, εἰ δὲ οὐκ ἔχει, οὐδὲ κατασκευάσει
 112 τι, πολὺ δὲ μᾶλλον οὐδὲ τὴν ἐαυτῆς ὑπαρξιν. ἢ
 τε τὴν ἀπόδειξιν πιστούμενη ἀπόδειξις ἤτοι ζη-
 τεῖται ἢ ἀζήτητός ἐστιν. ἀλλ' ἀζήτητος μὲν οὐκ
 ἂν εἴη διὰ τὰς ἔμπροσθεν εἰρημένας αἰτίας, ζητου-
 μένη δὲ ὀφείλει ὑπ' ἄλλης κατασκευάζεσθαι,
 κακείνη πάλιν ὑπ' ἄλλης, καὶ τοῦτο εἰς ἄπειρον.
 οὐκ ἄρα ἔστι τις ἀπόδειξις.
 113 Ἀλλὰ γὰρ καὶ πρὸς τὰ συνέχοντα θεωρήματα
 τῆς ῥητορικῆς ἀντειπόντες ἀπ' ἄλλης ἀρχῆς καὶ
 τῶν πρὸς τοὺς γεωμέτρους καὶ ἀριθμητικούς
 ἀποριῶν ἀπτώμεθα.

thing. By what then? Either by a generic or by a
 specific proof. Not by a specific, since the existence 111
 of the generic is as yet unconfirmed; nor yet by a
 generic; for that is the matter in dispute. So then,
 no generic proof exists. From this it follows that
 neither does the specific proof exist.—And besides,
 if the generic proof has premisses and a conclusion it
 is not generic, and if it does not it will not prove any-
 thing, and what is much worse, it will not even prove
 its own existence.—Also, the proof which confirms 112
 the proof is either questioned or unquestioned. But,
 for the reasons stated above, it will not be un-
 questioned, and if questioned it must be proved by
 another proof, and this again by another, and so on
ad infinitum. Therefore no proof exists.

So, now that we have refuted the main doctrines 113
 of Rhetoric, let us make a fresh start and deal with
 the objections to be raised against the Geometers
 and the Arithmeticians.

ΠΡΟΣ ΓΕΩΜΕΤΡΑΣ

1 Ἐπεὶ οἱ γεωμέτραι συνορῶντες τὸ πλήθος τῶν ἐπακολουθούντων αὐτοῖς ἀπόρων¹ εἰς ἀκίνδυνον εἶναι δοκοῦν καὶ ἀσφαλὲς πρᾶγμα καταφεύγουσι, τὸ ἐξ ὑποθέσεως αἰτεῖσθαι τὰς τῆς γεωμετρίας ἀρχάς, καλῶς ἂν ἔχοι καὶ ἡμᾶς τῆς πρὸς αὐτοὺς ἀντιρρήσεως ἀρχὴν τίθεσθαι τὸν περὶ τῆς ὑποθέσεως λόγον. καὶ γὰρ ὁ Τίμων ἐν τοῖς πρὸς τοὺς φυσικοὺς τοῦτο ὑπέλαβε δεῖν ἐν πρώτοις ζητεῖν, φημί δὲ τὸ εἰ ἐξ ὑποθέσεως τι ληπτέον. διόπερ καὶ ἡμᾶς οἰκεῖόν ἐστιν ἐκείνῳ στοιχοῦντας τὸ παραπλήσιον ποιεῖν ἐν τῇ πρὸς τοὺς ἀπὸ τῶν μαθημάτων διεξόδῳ. τάξεως δὲ ἕνεκα προληπτέον ὅτι πολλαχῶς μὲν καὶ ἄλλως ὑπόθεσις προσαγορεύεται, τὰ νῦν δὲ ἀπαρκέσει τριχῶς λέγεσθαι, καθ' ἓνα μὲν τρόπον ἢ δραματικὴ περιπέτεια, καθὸ καὶ τραγικὴν καὶ κωμικὴν ὑπόθεσιν εἶναι λέγομεν καὶ Δικαιάρχου τινὰς ὑποθέσεις τῶν Εὐριπίδου καὶ Σοφοκλέους μύθων, οὐκ ἄλλο τι καλοῦντες ὑπόθεσιν ἢ τὴν τοῦ δράματος περιπέτειαν. καθ' ἕτερον δὲ σημαινόμενον ὑπόθεσις προσαγορεύεται ἐν ῥητορικῇ ἢ τῶν ἐπὶ μέρους ζήτησις, καθὸ καὶ

¹ ἀπόρων cj. Bekk. ἀποριῶν mss., Bekk.

AGAINST THE GEOMETERS

SINCE the Geometers, perceiving the multitude of 1 difficulties which beset them, take refuge in a method which seems to be free from danger and safe, namely, to beg by "hypothesis" the principles of geometry, it will be well for us, too, to begin our attack against them with the argument about "hypothesis." For 2 Timon, in his book *Against the Physicists*, assumed that one ought to raise this question first of all, —I mean, whether anything should be accepted from "hypothesis." Hence it is proper for us, in conformity with him, to do likewise in our treatise against these Mathematicians. And, for the sake of 3 due order, one must premise that the word "hypotheses" is used in a number of different senses; but it will be enough now to mention three: in one sense it means the *peripeteia* (or "argument" or "plot") of a drama, as we say that there is a tragic or a comic "hypothesis," and certain "hypotheses" of Dicaearchus^a of the stories of Euripides and Sophocles, meaning by "hypothesis" nothing else than the *peripeteia* of the drama. And "hypothesis" is used 4 with another signification in rhetoric, as investigation of particulars, in which sense the sophists are wont

^a A voluminous writer, disciple of Aristotle.

οἱ σοφισταὶ πολλάκις εἰώθασιν ἐν ταῖς διατριβαῖς λέγειν “θετέον ὑπόθεσιν.” οὐ μὴν ἀλλὰ καὶ κατὰ τρίτην ἐπιβολὴν ὑπόθεσιν καλοῦμεν ἀρχὴν ἀποδείξεων, αἴτησιν οὖσαν πράγματος εἰς κατασκευὴν 5 τινος. οὕτω γοῦν τρισὶν ὑποθέσεσι κεχρῆσθαι φαμεν τὸν Ἀσκληπιάδην εἰς κατασκευὴν τῆς τὸν πυρετὸν ἐμποιούσης ἐνστάσεως, μῆ μὲν ὅτι νοητοὶ τινές εἰσιν ἐν ἡμῖν πόροι, μεγέθει διαφέροντες ἀλλήλων, δευτέρα δὲ ὅτι πάντοθεν ὑγροῦ μέρη καὶ πνεύματος ἐκ λόγῳ θεωρητῶν ὄγκων συν-ηράνισται δι’ αἰῶνος ἀνηρεμήτων, τρίτη δὲ ὅτι ἀδιάλειπτοὶ τινες εἰς τὸ ἐκτὸς ἐξ ἡμῶν ἀποφοραὶ γίνονται, ποτὲ μὲν πλείους ποτὲ δὲ ἐλάττους πρὸς τὴν ἐνεστηκυῖαν περίστασιν.

6 Ἀλλὰ γὰρ τοσαυταχῶς νοουμένης τὰ νῦν τῆς ὑποθέσεως, πρόκειται τὰ νῦν ζητεῖν οὐ μὰ Δία περὶ τῆς δραματικῆς διατάξεως, οὐδὲ περὶ τῆς παρὰ τοῖς ῥήτορσι ζητήσεως, ἀλλὰ περὶ τῆς ἐν τέλει λεχθείσης ὑποθέσεως, ἣν ἀρχὴν ἀποδείξεως συμβέβηκεν εἶναι· ταύτην γὰρ καὶ οἱ γεωμέτραι λαμβάνουσι τὴν ὑπόθεσιν, βουλόμενοί τι γεω- 7 μετρικῶς ἀποδείξαι. διόπερ εὐθύς ῥητέον ὅτι καὶ ἐπεὶ οἱ ἐξ ὑποθέσεως λαμβάνοντές τι καὶ χωρὶς ἀποδείξεως ψιλῆ μόνον ἀρκοῦνται φάσει πρὸς τὴν ταύτης πίστιν, πύσεται τις αὐτῶν 8 τοιούτῳ τινὶ χρώμενος ἐπιλογισμῷ. ἤτοι ἰσχυρόν ἐστι καὶ βέβαιον πρὸς πίστιν τὸ ἐξ ὑποθέσεως τι λαβεῖν ἢ ἀπιστόν τε καὶ ἀσθενές. ἀλλ’ εἰ μὲν ἰσχυρόν, καὶ τὸ ἀντικείμενον ἐξ ὑποθέσεως ληφθὲν πιστόν γενήσεται καὶ βέβαιον, ὥστε θήσομεν τὰ

to say often in their discourses, “One must posit the hypothesis.” Moreover, in a third application we term the starting-point of proofs “hypothesis,” it being the postulating something for the purpose of proving something. Thus we say that Asclepiades ^a 5 made use of three “hypotheses” to demonstrate the initial condition which produces fever,—the first, that there exist in us certain intelligible (or “non-perceptible”) passages, differing from one another in size; the second, that particles of moisture and air are collected from all sides out of corpuscles perceived by reason and eternally in motion; the third, that certain unceasing effluvia are emitted from within us to the outside air, these being now more, now less, in number according to the condition prevailing at the moment.

Well then, “hypothesis” being now conceived in 6 these three ways, we certainly do not now propose to inquire about the arrangement in dramas, nor about oratorical questionings, but about the “hypothesis” in the sense mentioned last, which was “the starting-point of proof”; for this is the “hypothesis” which the Geometers adopt when they wish to prove anything geometrically. Consequently, we must state 7 at once that since those who assume a thing by hypothesis are satisfied with mere assertion, without proof, for its confirmation, one will interrogate them, employing some such reasoning as this:—Assuming 8 a thing by hypothesis is either a strong and firm confirmation or unreliable and weak.^b But if it is strong, its contrary, when assumed by hypothesis, will also be reliable and firm, so that we shall be posi-

^a Cf. P.H. iii. 32, ii. 140.

^b Cf. P.H. i. 173.

μαχόμενα. εἰ δὲ ἐπὶ τοῦ τὸ ἐναντίον ἐξ ὑποθέσεως λαμβάνοντος χωρὶς ἀποδείξεως ἀπιστόν ἐστιν ἢ ὑπόθεσις, ἀπιστος γενήσεται καὶ ἐπ' ἐκείνου, ὥστε οὐδέτερον αὐτῶν θήσομεν. οὐ τοίνυν ληπτέον
 9 ἐστὶν ἐξ ὑποθέσεώς τι. καὶ μὴν τὸ ὑποτιθέμενον πρᾶγμα ἤτοι ἀληθές ἐστι καὶ τοιοῦτον ὅποιον αὐτὸ ὑποτιθέμεθα ἢ ψεῦδος. ἀλλ' εἰ μὲν ἀληθές ἐστι, μηδὲ αἰτώμεθα αὐτό, εἰς πρᾶγμα ὑποψίας πλήρες καταφεύγοντες, τὴν ὑπόθεσιν, ἀλλ' αὐτόθεν λαμβάνωμεν, ἐπεὶ περ οὐθείς τάληθῆ καὶ ὄντα ὑποτίθεται, καθάπερ οὐδὲ τὸ νῦν ἡμέραν εἶναι ἢ ἐμὲ διαλέγεσθαι καὶ ἀναπνεῖν ἢ γὰρ περιφάνεια τούτων τῶν πραγμάτων αὐτόθεν βέβαιοι ἔχει τὴν θέσιν καὶ οὐ δισταζομένην τὴν ὑπόθεσιν. ὥστε εἰ ἀληθές ἐστι τὸ πρᾶγμα, μηδὲ αἰτώμεθα
 10 αὐτὸ ὡς μὴ ὄν ἀληθές. εἰ δ' οὐκ ἔστι τοιοῦτο ἀλλὰ ψεῦδος κατέστηκεν, οὐδὲν ὄφελος ἀνακύψει ἐκ τῆς ὑποθέσεως· καὶ γὰρ μυριάκις αὐτὸ ὑποτιθέμεθα, σαθροῖς, ὡς φασί, θεμελίους [οὐκ]¹ ἀκολουθήσει τὸ συμπέρασμα τῆς ζητήσεως ἐξ
 11 ἀνυπάρκτων ὀρρωμένης ἀρχῶν. οὐ μὴν ἀλλ' εἰ τις οἷς ἂν ὑποθῆται, τούτοις τὰ ἀκολουθοῦντα πιστὰ τυγχάνειν ἀξιώσει, μήποτε πᾶσαν ἀναρεῖ ζήτησιν. εὐθέως γὰρ ὑποθήσεται ἕκαστος ἡμῶν τὸ τὰ τρία τέσσαρα εἶναι, καὶ τούτου δοθέντος συνάξει ὅτι καὶ τὰ ἐξ ὀκτώ ἐστιν· εἰ γὰρ τὰ τρία τέσσαρά ἐστι, τὰ ἐξ ὀκτῶ γενήσεται· ἀλλὰ μὴν τὰ τρία τέσσαρά ἐστιν, ὡς ἢ ὑπόθεσις δίδωσιν· τὰ
 12 ἄρα ἐξ ὀκτῶ ἐστιν. πάλιν τε αἰτήσομεν ὅτι μένει τὸ κινούμενον, καὶ συγχωρηθέντος τοῦ πράγματος συνάξομεν ὅτι ἢ φλόξ ἡρεμεῖ· εἰ γὰρ τὸ κινούμενον

¹ [οὐκ] del. Heints.

ting conflicting things simultaneously. But if the hypothesis is unreliable in the case of the man who assumes the contrary by hypothesis without proof, it will also be unreliable in the case of the other man, so that we shall posit neither of the things. Nothing, then, must be assumed by hypothesis.—Moreover, the thing which is assumed is either true and such as we assume it to be, or false. But if it is true, let us not postulate it, fleeing for refuge to a thing which is highly suspicious—namely, hypothesis,—but let us accept it straightaway, for no one assumes *ex hypothesi* things true and actual, such as “Now it is day,” or “I am talking and breathing”^a; for the very obviousness of these facts does of itself make the statement firm and the assumption undisputed. So that if the thing is true, let us not postulate it as though it were not true. But if it is not true but is false, no help will emerge from the hypothesis; for though we assume it a myriad times, on rotten foundations, as the saying goes, will follow the conclusion of the inquiry which starts from non-existent principles.—Moreover, if anyone shall maintain that the conclusions which follow from whatever assumptions are made are trustworthy, it is to be feared that he is destroying all inquiry. For example, each of us will assume that three is four, and, this being granted, will infer also that six is eight; for if three is four, six will be eight; but in fact, as the hypothesis grants, three is four; therefore six is eight. Again, we shall postulate that what moves is at rest, and this being agreed we shall infer that the flame is stationary; for if what moves is at rest, the flame is stationary;

^a Cf. *Adv. Log.* i. 242, ii. 144; *Adv. Rhet.* 65.

μένει, ἢ φλόξ ἡρεμεῖ· τὸ δέ γε κινούμενον μένει·
 ἢ ἄρα φλόξ ἡρεμεῖ. ἀλλ' ὃν τρόπον οἱ γεωμέτραι
 ἀτόπους ἐροῦσιν εἶναι ταύτας τὰς ὑποθέσεις (βέ-
 βαιον γὰρ εἶναι δεῖν τὸν θεμέλιον, ἵνα συνομολογηθῆ
 καὶ τὸ ἀκόλουθον), οὕτω καὶ ἡμεῖς πάντα τὰ
 ὑποθετικῶς αὐτοῖς λαμβανόμενα οὐ προσησόμεθα
 13 χωρὶς ἀποδείξεως. ἄλλως τε, εἰ βέβαιόν ἐστι καὶ
 πιστὸν τὸ ὑποτιθέμενον ἢ ὑποτίθεται, μὴ ταῦτα
 ὑποτιθέσθωσαν ἐξ ὧν ἀποδείξουσίν τι, ἀλλ' αὐτὸ
 τὸ ἀποδεικνύμενον, τουτέστι μὴ τὰ λήμματα τῆς
 ἀποδείξεως ἀλλὰ τὴν ἐπιφορὰν· ὃ γὰρ δύναται
 πρὸς πίστιν αὐτοῖς ἐπὶ τῶν ἐκκαλυπτόντων ἢ
 ὑπόθεσις, τοῦτο δυνήσεται καὶ ἐπὶ τῶν ἐκκαλυπτο-
 μένων ἐκ τῆς ἀποδείξεως πραγμάτων. εἰ δ'
 ἄπιστόν ἐστι, κἄν πολλάκις ὑποτεθῆ, τὸ τῆς ἀπο-
 δείξεως συμπέρασμα χωρὶς ἀποδείξεως, ἄπιστον
 14 γενήσεται καὶ τὸ εἰς κατασκευὴν τούτου λαμβανό-
 μενον, εἰ μὴ δι' ἀποδείξεως διδάσκειτο. νῆ Δί',
 ἀλλ' εἴπερ, φασί, τὸ ἀκολουθοῦν ταῖς ὑποθέσεσιν
 ἀληθὲς εὐρίσκειται, πάντως καὶ τὰ ὑποτεθέντα,
 τουτέστιν οἷς ἐπηκολούθησεν, ἀληθῆ γενήσεται.
 ὃ πάλιν ἐστὶν εὐήθες· πόθεν γὰρ ὅτι τὸ ἀκολουθοῦν
 τισὶν ἐν ἀποδείξει πάντως ἀληθὲς ἐστίν; ἢ γὰρ ἐξ
 αὐτοῦ μαθόντες ἐκείνου τοῦτ' ἐροῦσιν, ἢ ἐκ τῶν
 15 οἷς ἠκολούθησε λημμάτων. ἀλλ' ἐξ αὐτοῦ μὲν
 οὐκ ἂν εἴποιεν. ἄδηλον γὰρ ἐστίν, τὸ δὲ ἄδηλον
 ἐξ αὐτοῦ πιστὸν οὐκ ἔστιν· ἀποδεικνύου γοῦν
 τοῦτο ἐπιβάλλονται ὡς μὴ ἐν αὐτῷ τὴν πίστιν
 ἔχον. καὶ μὴν οὐδ' ἐκ τῶν λημμάτων· περὶ γὰρ
 τούτων ἐστὶν ἡ πᾶσα διαμάχη, καὶ μηδέπω αὐτῶν
 πεπιστωμένων· οὐδὲ τὸ ἀποδεικνύμενον ἐξ αὐτῶν

¹ πεπιστωμένων cj. Bekk. : πεπιστευμένων MSS., Bekk.

but what moves is at rest; therefore the flame is
 stationary. But just as the Geometers will say that
 these hypotheses are absurd (for the foundation must
 be firm in order that the inference which follows may
 be agreed), so too we shall refuse to accept any of
 their hypothetical assumptions without proof. More- 13
 over, if the assumption, as assumed, is firm and
 trustworthy, let them not assume the things from
 which they will prove something, but the thing
 proved itself,—that is, not the premisses of the proof
 but its conclusion; for the power for confirmation
 which their hypothesis possesses in the case of the
 things which reveal, the same power it will possess in
 the case of the things revealed by the proof. But
 if the conclusion of the proof without proof is un-
 trustworthy, though it be assumed many times over,
 that which is assumed in order to demonstrate it will
 also be untrustworthy unless it be taught by means
 of proof.—But in Heaven's name, they say, if what 14
 follows the hypotheses is found to be true, certainly
 the things assumed—that is, the things which it has
 followed—will be true. But this again is silly; for
 how do we know that that which follows certain things
 in a proof is in all cases true? For they will assert
 this as having learnt it either from the thing itself or
 from the premisses which it followed. But they will 15
 not assert it from itself. For it is non-evident, and
 the non-evident is not of itself trustworthy; at any
 rate they essay to prove it, as though it were not of
 itself convincing. Nor yet from the premisses; for
 the whole controversy is about these, and while they
 are still unconfirmed the thing which is being proved

16 βέβαιον εἶναι δύναται. ἔτι οὐδ' ἂν τὸ λήγον ἢ ἀληθές, εὐθύς καὶ τὸ ἡγούμενον ἔστι τοιοῦτον. ὡςπερ γὰρ τῷ ἀληθεὶ πέφυκεν ἀληθές ἐπακολουθεῖν καὶ ψεύδει ψεύδος, οὕτως ἡξίωται καὶ ψεύδει ἀληθές συνεισάγεσθαι, καθάπερ [ἐν] τῷ πέτασθαι τὴν γῆν, ψεύδει ὄντι, τὸ εἶναι τὴν γῆν ἀληθές
 17 ὑπάρχον εἶπετο. ὅθεν οὐκ εἰ τὸ λήγον ἔστιν ἀληθές, πάντως καὶ τὸ ἡγούμενον ἀληθές, ἀλλ' ἐνδέχεται τοῦ λήγοντος ἀληθοῦς ὄντος τὸ ἡγούμενον ὑπάρχειν ψεύδος.

Καὶ δὴ ὅτι μὲν οὐκ εὖ ποιούσιν οἱ ἀπὸ τῶν μαθημάτων ἐξ ὑποθέσεως λαμβάνοντες τὰς ἀρχὰς τῆς ἀποδείξεως καὶ ἐκάστου θεωρήματος, ἐπιφθεγγόμενοι τὸ δεδοσθω, διὰ τούτων αὐτάρκως
 18 κατεσκευάσται· μετελθόντες δὲ ἐξῆς διδάσκωμεν ὅτι ψευδεῖς καὶ ἀπιθάνους αὐτῶν συμβέβηκεν εἶναι τὰς ἀρχὰς τῆς τέχνης. καὶ δὴ πολλῶν εἰς τοῦτο δυναμένων λέγεσθαι, ὡς ἐναρχόμενοι τῆς ὑφ' ἡγήσεως εἶπομεν, τούτοις προσαχθήσεται τὰ τῆς ἀπορίας ὧν ἀναιρουμένων καὶ τὰ λοιπὰ συναυρεθήσεται. ἐπεὶ οὖν τῶν ἀρχῶν διαβληθειῶν οὐδὲ αἱ κατὰ μέρος ἀποδείξεις αὐτοῖς δύνανται προκόπτειν, λέγωμεν τὰ ἀρμόζοντα πρὸς τὰς ἀρχάς.

19 Εὐθέως τοίνυν ὡς πρῶτόν τι καὶ στοιχειωδέστατον διδάσκουσιν ἡμᾶς ὅτι σῶμα μὲν ἔστι τὸ τὰς τρεῖς ἔχον διαστάσεις, μήκος πλάτος βάθος, ὧν πρώτη μὲν διάστασις ἔστιν ἡ κατὰ μήκος ἄνωθεν κάτω, δευτέρα δὲ ἡ κατὰ πλάτος ἀπὸ δεξιῶν ἐπ' ἀριστερά, τρίτη δὲ ἡ κατὰ βάθος ἀπὸ τῶν πρόσω εἰς τοῦπίσω. ὥστε τῶν τριῶν τούτων ἐξ γίνεσθαι παρατάσεις, δύο καθ' ἐκάστην, τῆς

by means of them cannot be firm.—Further, even if 16 the consequent is true, the antecedent is not inevitably true. For as the true naturally follows the true, and the false the false, so it is maintained that the true is a consequence of the false,—for example, that “the earth exists,” which is true, follows “the earth flies,” which is false. Hence, if the consequent is 17 true, the antecedent is not in all cases true, but when the consequent is true it is possible for the antecedent to be false.

So now, by these arguments it has been sufficiently established that the Mathematicians do no good by assuming *ex hypothesi* the principles of proof and of each theorem, repeating the formula “Let it be granted.” Passing on, let us show in the next place 18 that the principles of their art are in fact false and incredible. Now many arguments can be used to prove this, as we said when commencing our exposition, but our doubts shall be cast on those principles the destruction of which will involve that of the rest. So, since their particular proofs cannot go forward when the principles are under suspicion, let us state suitable arguments against the principles.

To start with they tell us, as a primary and most 19 fundamental fact, that “body” is that which has three dimensions,^a—length, breadth, depth,—and of these the first dimension, that of length, is up and down, the second, that of breadth, is from right to left, the third, that of depth, from before to behind. Thus there are six extensions of these three, two in

^a Cf. P.H. iii. 39 f.; Adv. Phys. i. 367 ff.

μὲν πρώτης τὴν ἄνω καὶ κάτω, τῆς δὲ δευτέρας
 τὴν ἐν ἀριστερᾷ καὶ ἐν δεξιᾷ, τῆς δὲ τρίτης τὴν
 πρόσω καὶ ὀπίσω. στιγμῆς μὲν γὰρ ῥυείσης
 γραμμὴν γίνεσθαι φασι, γραμμῆς δ' ἐπιφάνειαν,
 20 ἐπιφανείας δὲ στερεὸν σῶμα. παρὸ καὶ ὑπογρά-
 φοντες λέγουσι στιγμὴν μὲν εἶναι σημεῖον ἀμερὲς
 καὶ ἀδιάστατον ἢ πέρασ γραμμῆς, γραμμὴν δὲ
 μήκος ἀπλατὲς ἢ πέρασ ἐπιφανείας, ἐπιφάνειαν
 21 δὲ πέρασ σώματος ἢ πλάτος ἀβαθές. τάξει οὖν
 ἀναλαμβάνοντες περὶ στιγμῆς λέγωμεν πρῶτον, εἶτα
 περὶ γραμμῆς, τὸ δὲ μετὰ τοῦτο περὶ ἐπιφανείας
 καὶ σώματος· τούτων γὰρ ἀναιρουμένων οὐδ' ἡ
 γεωμετρία γενήσεται τέχνη, μὴ ἔχουσα τὰ ἐφ'
 οἷς ἡ σύστασις αὐτῆς δοκεῖ προκόπτειν.
 22 Ἡ τοίνυν στιγμῆ, ἣν φασι σημεῖον ἀδιάστατον
 ὑπάρχειν, ἥτοι σῶμα νοεῖται ἢ ἀσώματον. καὶ
 σῶμα μὲν οὐκ ἂν εἴη κατ' αὐτούς· τὰ γὰρ μὴ
 ἔχοντα διάστασιν οὐκ εἶναι σώματα. λείπεται
 οὖν ἀσώματον αὐτὴν ὑπάρχειν, ὃ πάλιν ἐστὶν
 ἀπίθανον. τὸ μὲν γὰρ ἀσώματον οὐδενὸς νοεῖται
 γεννητικὸν ὡσανεὶ ἀθιγὲς καθεστῶς, ἡ δὲ στιγμῆ
 23 νοεῖται τῆς γραμμῆς γεννητικῆ· οὐ τοίνυν ἐστὶ
 σημεῖον ἀδιάστατον ἢ στιγμῆ. καὶ μὴν εἶπερ
 οἷμιν τῶν ἀδήλων ἐστὶ τὰ φαινόμενα, ἐπεὶ οὐ
 δυνατὸν ἐν τοῖς φαινομένοις λαβεῖν τινὸς σημεῖον
 καὶ πέρασ ἀδιάστατον, δῆλον ὡς οὐδ' ἐν τοῖς
 νοητοῖς ληφθῆσεται τι τοιοῦτον. ἐν δὲ γε τοῖς
 αἰσθητοῖς οὐδὲν ἐστὶν ἀδιάστατον λαβεῖν, ὡς
 24 παραστήσω· ὥστ' οὐδ' ἐν τοῖς νοητοῖς. πᾶν
 τοίνυν τὸ ἐν τοῖς αἰσθητοῖς ὑποπίπτον τινὸς πέρασ

each case,—up and down of the first, right and left of
 the second, before and behind of the third. For they
 assert that the line is produced by the flow of the
 point, the surface by that of the line, and the solid
 body by that of the surface. So in describing these 20
 they say that “the point is a sign without parts or
 dimensions,” or “the limit of a line,” “the line is
 length without breadth,” or “the limit of a surface,”
 and “the surface is the limit of a body,” or “breadth
 without depth.” Taking these, then, in order, let us 21
 speak first about the point, next about the line, and
 after that about the surface and body; for if these
 are destroyed Geometry will not be an Art, as not
 possessing the conditions upon which success in its
 construction seems to depend.

Now the point, which they say is “a sign without 22
 dimensions,” is conceived as either a body or incor-
 poreal.^a And according to them it will not be a body;
 for things which have no dimension are not bodies.
 It remains, then, to say that it is incorporeal; but
 this again is incredible. For the incorporeal, as being
 impalpable, is conceived as generative of nothing, but
 the point is conceived as generative of the line; so
 the point is not a sign without dimensions.—More- 23
 over, if apparent things are “the vision of things non-
 evident,” then, since in apparent things it is impossible
 to perceive a limit of anything or sign which is with-
 out dimensions, it is plain that no such thing will be
 perceived in intelligible things either. But in fact,
 as I shall establish, it is impossible to perceive in
 things sensible anything without dimensions; so that
 it is also impossible in intelligibles. Now everything 24
 which is perceived in sensibles as the limit and sign

• Cf. *Adv. Phys.* i. 377.

καὶ σημεῖον σὺν τούτῳ καταλαμβάνεται τινος ἄκρον, σὺν τῷ καὶ μέρος ἐκείνου, ὅπερ ἐστὶν ἄκρον, ὑπάρχειν· ἐὰν γοῦν ἀφέλωμεν αὐτό, μειωθήσεται τὸ ἀφ' οὗ ἡ ἀφαίρεσις. τὸ δὲ μέρος τινὸς ὑπάρχον εὐθύς καὶ συμπληρωτικὸν αὐτοῦ καθέστηκεν, ὃ δὲ ἐστὶ τινος συμπληρωτικόν, πάντως αὔξει τὸ μέγεθος ἐκείνου, καὶ ὃ ἐστὶ μεγέθους αὐξη-
 25 τικόν, τοῦτο ἐξ ἀνάγκης ἔχει μέγεθος. πᾶν ἄρα τὸ ἐν τοῖς αἰσθητοῖς σημεῖόν τινος καὶ ἄκρον μέγεθος ἔχον οὐκ ἐστὶν ἀδιάστατον. ὅθεν εἰ καὶ τὸ νοητὸν μεταβατικῶς ἀπὸ τοῦ αἰσθητοῦ νοοῦμεν, σὺν τούτῳ καθεστῶς σημεῖον καὶ πέρασ γραμμῆς αὐτὸ νοήσομεν, σὺν τῷ καὶ συμπληρωτικόν αὐτῆς ὑπάρχειν, ὥστε καὶ αὐτὸ διάστασιν ἔξει πάντως,
 26 ὃ γε διαστάσεώς ἐστι περιποιητικόν. ἄλλως τε τὴν ἀπὸ τοῦ κέντρου ἐκβληθείσαν εὐθειάν φασὶ περιαγομένην τῷ πέρατι ἑαυτῆς κυκλογραφεῖν τὴν ἐπίπεδον. ἐπεὶ οὖν τὸ ἄκρον ταύτης τῆς εὐθείας ἐστὶ σημεῖον, καὶ τοῦτο περιαγόμενον καταμετρεῖ τὴν περιφέρειαν, ἔσται τοῦτο συμπληρωτικόν τῆς περιφέρειας· ἢ δὲ γε περιφέρεια διάστασιν εἶχεν· τοίνυν καὶ τὸ συμπληρωτικόν αὐτῆς σημεῖον ἔξει
 27 τινὰ διάστασιν. ἢ γε μὴν σφαῖρα καθ' ἓν σημεῖον ἀξιοῦται τῆς ἐπιπέδου ἄπτεσθαι, ἐκκυλιόμενη τε γραμμὴν ποιεῖν, δῆλον ὡς τῶν ἐπικαταπιπτόντων σημείων τὴν ὅλην συντιθέντων γραμμὴν. τοίνυν εἰ τοῦ μεγέθους τῆς γραμμῆς συμπληρωτικόν ἐστὶ τὸ σημεῖον, ἔξει καὶ αὐτὸ μέγεθος. συγκεχώρηται δὲ τοῦ μεγέθους τῆς γραμμῆς συμπληρωτικόν αὐτὸ τυγχάνειν· καὶ αὐτὸ ἄρα μέγεθος ἔξει καὶ οὐκ ἀδιάστατον γενήσεται.

of something is apprehended as being likewise the extremity of something, and also as being part of that whereof it is the extremity; if, then, we take it away, that from which it is taken will be diminished. And that which is part of a thing clearly helps to complete that thing, and that which helps to complete a thing will certainly increase its magnitude, and what serves to complete a magnitude necessarily possesses magnitude. Therefore every 25 sign or extremity of anything in sensibles, as possessing magnitude, is not without dimensions. Hence, if we conceive the intelligible by transference from the sensible, we shall conceive it as being the sign and limit of the line, and also as helping to complete it, so that it too will certainly possess a dimension since it is productive of a dimension. Furthermore, they say 26 that the straight line drawn from the centre when it revolves describes a circle in the plane with its limit. Since then, the extremity of this straight line is a sign, and this by revolving measures out the circumference, it will help to complete the circumference; but the circumference possesses a dimension; so the sign, too, which helps to complete it will possess a dimension.—Moreover, it is held that the sphere 27 touches the plane at one sign, and by rolling forward makes a line, the signs which make contact successively composing, as is evident, the whole line. Then, if the sign helps to complete the magnitude of the line, it too will possess magnitude. But it has been agreed that it does help to complete the magnitude of the line; therefore it too will possess magnitude and will not be without dimensions.

- 28 Ἄλλ' εἰώθασι πρὸς τὰς τοιαύτας ἐπιχειρήσεις ὑπαντῶντες οἱ περὶ τὸν Ἐρατοσθένη λέγειν ὅτι τὸ σημεῖον οὔτε ἐπιλαμβάνει τινα τόπον οὔτε καταμετρεῖ τὸ διάστημα τῆς γραμμῆς, ῥυὲν δὲ ποιεῖ τὴν γραμμὴν. ὅπερ ἐστὶν ἀδιανόητον. ῥεῖν γὰρ νοεῖται τὸ ἀπὸ τινος τόπου εἰς τινα τόπον ἐπεκτείνεσθαι, ὡσπερ τὸ ὕδωρ. εἰ δὴ τοιοῦτόν τι φαντασιούμεθα τὸ σημεῖον, ἀκολουθήσει οὐχ οἶον ἀμερὲς αὐτὸ τυγχάνειν, ἀλλ' ἐκ τῶν ἐναντίων πολυμερές.
- 29 Τοσαῦτα μὲν περὶ στιγμῆς· ἴδωμεν δὲ παρακειμένως καὶ τὰ περὶ γραμμῆς ὀφείλοντα λέγεσθαι· αὕτη γὰρ μετὰ τὴν στιγμὴν ἐτέτακτο. τοῖνυν κἂν δοθῇ στιγμὴ τις ὑπάρχειν, οὐκ ἔσται ἡ γραμμὴ. εἰ γὰρ αὕτη ῥύσις ἐστὶ σημείου καὶ μῆκος ἀπλατές, ἦτοι ἓν ἐστὶ σημεῖον εἰς μῆκος ἐκτεταμένον ἢ
- 30 πολλὰ ἀδιάστατα¹ στοίχῳ κείμενα· οὔτε δὲ ἓν ἐστὶν εἰς μῆκος ἐκτεταμένον, ὡς παραστήσομεν, οὔτε πολλὰ σημεία στοίχῳ κείμενα, καθὼς καὶ τοῦτο ὑπομνήσομεν· οὐκ ἄρα ἐστὶ γραμμὴ. εἰ γὰρ ἓν ἐστὶ [τὸ]² σημείον, ἦτοι τοῦτο³ τὸ σημεῖον ἓνα μόνον ἐπέχει τόπον, ἢ μετατίθεται τόπον ἐκ τόπου, ἢ ἐπεκτείνεται ἀπὸ τινος τόπου εἰς τινα
- 31 τόπον. ἀλλ' εἰ μὲν ἐνὶ ἐμπεριέχεται τόπῳ, οὐκ ἔσται γραμμὴ ἀλλὰ στιγμὴ· ῥυὲν γὰρ ἐνοεῖτο γραμμὴ. εἰ δὲ τόπον ἐκ τόπου μετέρχεται, ἦτοι, ὡς προείπον, ὃν μὲν ἀπολείπον ὃν δὲ ἐπιλαμβάνον μετέρχεται, ἢ οὐ μὲν ἐχόμενον τόπου εἰς ὃν δὲ ἐκτεινόμενον. ἀλλ' εἰ ὃν μὲν ἀπολείπον ὃν δὲ ἐπιλαμβάνον, πάλιν οὐκ ἔσται γραμμὴ ἀλλὰ

¹ ἀδιάστατα Heintz : διαστατὰ mss., Bekk.

² [τὸ] del. Heintz.

But in answer to these objections Eratosthenes^a 28 is accustomed to say that the sign neither occupies any space nor measures out the interval of the line, but by flowing makes the line. But this is inconceivable. For flowing is conceived as extension from a place to a place, as water extends. And if we shall imagine the sign to be something of that sort, it will follow that it is not like a thing without parts, but of the opposite sort, abounding in parts.

So much, then, concerning the point : in the next 29 place let us see what ought to be said concerning the line ; for this comes next in order after the point. Now even though it be granted that a point exists, the line will not exist. For if it is " a flux of the sign " and " length without breadth," it is either a single sign extended in length or a number of signs placed in a row without intervals ; but it is neither a single 30 sign extended in length, as we shall establish, nor a number of signs placed in a row, as we shall also show ; therefore line does not exist. For if it is a single sign, this sign either occupies one place only or moves on from place to place, or is extended from a place to a place. But if it is contained in one place, it will not 31 be a line but a point ; for the line was conceived as the result of flux. And if it moves from place to place, either it moves—as I said before—by quitting one place and occupying another, or by keeping to one place and extending to another. But if it is by quitting one place and occupying another, again it will not be a line but a point ; for as it was conceived 32

^a Eratosthenes of Cyrenè, Head of the Library at Alexandria, *circa* 220 B.C., and specially noted for his writings on geography.

³ τοῦτο Heintz : αὐτὸ mss., Bekk.

- 32 *στιγμή· ᾧ γὰρ λόγῳ τόπον πρῶτον ἐπεσχηκὸς στιγμὴ τις ἀλλ' οὐ γραμμὴ ἐνοεῖτο, τῷ αὐτῷ καὶ τὸν δεύτερον ἐπιλαμβάνον τόπον νοηθήσεται στιγμή· εἰ δὲ οὐ μὲν ἐχόμενον τόπου εἰς ὃν δὲ ἐκτείνόμενον, ἤτοι μεριστῷ τόπῳ ἀντιπαρεκτείνεται ἢ*
 33 *ἀμερίστῳ. καὶ εἰ μὲν ἀμερίστῳ τόπῳ ἀντιπαρεκτείνεται, πάλιν οὐκ ἔσται γραμμὴ ἀλλὰ στιγμή καὶ σημεῖον· τὸ γὰρ ἀμερῆ τόπον ἐπεσχηκὸς ἀμέρες ἔστιν, ὃ δὲ ἔστιν ἀμέρες, στιγμή καὶ οὐ γραμμὴ καθέστηκεν. εἰ δὲ μεριστῷ, πάντως ἐπεὶ τὸ μεριστῷ <παρεκτεινόμενον>¹ μέρη ἔχει, εἴγε ἅπαντι παρεκτείνεται τῷ τόπῳ, τὸ δὲ μέρη ἔχον, οἷς ἀντιπαρεκτείνεται τοῖς τοῦ τόπου μέρεσι, σῶμά ἐστιν, ἔσται τὸ σημεῖον καὶ μεριστὸν καὶ σῶμα· ὅπερ ἄτοπον. ὥστε οὐχ ἓν ἔστι σημεῖον ἢ γραμμὴ.*
 34 *καὶ μὴν οὐδὲ [τὰ]² πολλὰ σημεῖα στοιχηδὸν κείμενα. ταῦτα γὰρ τὰ σημεῖα ἤτοι ψαύοντα ἀλλήλων νοεῖται ἢ οὐ ψαύοντα. καὶ εἰ μὲν οὐ ψαύοντα ἀλλήλων, μεσολαβούμενα τόποις τισὶ διορισθήσεται, καὶ τόποις διοριζόμενα οὐκέτι ποιήσει μίαν*
 35 *γραμμὴν. εἰ δὲ ψαύοντα ἀλλήλων νοεῖτο, ἤτοι ὅλα ὄλων ἄψεται ἢ μέρεσι μερῶν. καὶ εἰ μὲν μέρεσι μερῶν ἄψεται, οὐκ ἔσται αὐτὰ ἔτι ἀδιάστατα καὶ ἀμερῆ· τὸ γὰρ μέσον δυοῖν σημείων λόγου χάριν νοούμενον σημεῖον ἄλλῳ μὲν μέρει ἄψεται τοῦ ἔμπροσθεν σημείου, ἄλλῳ δὲ τοῦ ὀπισθεν, οὐ τῷ αὐτῷ δὲ τῆς ἐπιπέδου, διαφέροντι δὲ τοῦ ἄλλου τόπου, ὥστε μηκέτ' αὐτὸ ταῖς*
 36 *ἀληθείαις ἀμέρες τυγχάνειν ἀλλὰ πολυμέρες. εἰ δὲ ὅλα ὄλων ἄψαιτο σημεῖα, δῆλον ὡς ἓν σημείους*

¹ μεριστῷ (παρεκτεινόμενον) scripsi : μεριστὸν MSS., Bekk. (cf. *Adv. Phys.* i. 385).

as a point but not a line when it occupied the first place, so, by the same reasoning, it will be conceived as a point when it occupies the second place. And if it is keeping to one place and extending to another, it extends over place which is either divisible or indivisible. But if it extends over indivisible 33 place, once again it will not be a line but a point or sign, for that which occupies indivisible place is indivisible, and that which is indivisible is a point and not a line. And if it extends over divisible place, then,—since (that which extends over) the divisible has parts,—since it is extended over all the place, and that which has parts wherewith it extends over the parts of the place is body, the sign will certainly be both divisible and corporeal ; which is absurd. Consequently, the line is not one single sign.—Nor yet is it 34 a number of signs placed in a row. For these signs are conceived either as touching one another or as not touching. If as not touching one another, being intercepted they will be separated by certain spaces, and being separated by spaces they will no longer form one line. And if they are conceived as touching 35 one another, they will either touch wholes as wholes or parts with parts.^a But if they shall touch parts with parts, they will no longer be without dimensions and without parts ; for the sign which is conceived—shall we say ?—as midway between two signs will touch the sign in front with one part, and that behind with another, and the plane with a different part, and the other place with yet another, so that in very truth it is no longer without parts but with many parts. And if the signs as wholes should touch wholes, it is 36

^a Cf. *P.H.* iii. 45 f.

² [τὰ] del. Heintz.

σημεία περισχεθήσεται καὶ τὸν αὐτὸν ἐφέξει τόπον· ταύτη τε οὐκ ἔσται στοιχηδὸν κείμενα, ἵνα γένηται γραμμὴ, ἀλλ' εἰ τὸν αὐτὸν ἐπέσχηκε τόπον, μία καταστήσεται στιγμὴ. εἴπερ οὖν, ἢ ἐπινοηθῆ γραμμὴ, δεῖ προεπινοεῖσθαι¹ τὸ σημεῖον ἐξ οὗ λαμβάνει τὴν νόησιν, ἐπιδέδεικται δὲ μήτε σημεῖον οὐσα μήτε ἐκ σημείων σύνθετος, οὐδὲν ἔσται γραμμὴ.

- 37 Καὶ μὴν πάρεστιν ἀποστάντας τῆς τοῦ σημείου νοήσεως προηγουμένως ἀναιρεῖν τὴν γραμμὴν καὶ τὸ ἀνεπινοήτον αὐτῆς διδάσκειν. γραμμὴ γὰρ ἔστιν, ὡς αὐτῶν πάρεστιν ἀκούειν τῶν γεωμετρῶν, μήκος ἀπλατές, σκεψάμενοι δὲ ἡμεῖς ἀκριβῶς οὐτε ἐν τοῖς νοητοῖς οὐτε ἐν τοῖς αἰσθητοῖς εὐρήσομεν
- 38 δυνάμενόν τι ληφθῆναι μήκος ἀπλατές. καὶ ἐν μὲν τοῖς αἰσθητοῖς, ἐπεὶ περὶ ὃ ἂν λάβωμεν αἰσθητὸν μήκος, τοῦτο πάντῃ τε καὶ πάντως σὺν ποσῷ
- 39 πλάτει ληψόμεθα· ἐν δὲ τοῖς νοητοῖς, καθόσον ἕτερον μὲν ἐτέρου στενωτέρου δυνάμεθα νοῆσαι μήκος, ὅταν δὲ τὸ αὐτὸ μήκος κατ' ἰσότητα φυλάττοντες σχίζωμεν τοῖς ἐπινοίαις τὸ πλάτος καὶ ἄχρι τινός τοῦτο² ποιῶμεν, ἔλαττον μὲν τὸ πλάτος καὶ ἔλαττον γινόμενον νοήσομεν, ἐπειδὴν δὲ ἅπαξ φθάσωμεν στερῆσαι τοῦ πλάτους τὸ μήκος, οὐκέτι οὐδὲ μήκος φαντασιούμεθα, ἀλλ'
- 40 ἀναιρεῖται καὶ ἡ τοῦ μήκους ἐπίνοια. καθόλου τε πᾶν τὸ νοούμενον κατὰ δύο τοὺς πρώτους ἐπινοεῖται τρόπους· ἢ γὰρ κατὰ περίπτωσιν ἐναργῆ ἢ κατὰ τὴν ἀπὸ τῶν ἐναργῶν μετάβασιν, καὶ ταύτην τριστῆν ἢ γὰρ ὁμοιωτικῶς ἢ ἐπισυνθετικῶς ἢ ἀναλογιστικῶς. ἀλλὰ κατὰ μὲν περιπτωτικὴν

¹ προεπινοεῖσθαι Fabr. : προεπινοεῖσθαι mss., Bekk.

² τοῦτο cj. Bekk. : τὸ αὐτὸ mss., Bekk.

plain that signs will be contained in signs and will occupy the same place ; and thus they will not be placed in a row, so as to form a line, but if they occupy the same place they will form one point. If, then, in order that the line may be conceived it is necessary that the sign, from which the notion of it is derived, should first be conceived, and it has been shown that the line is neither a sign nor composed of signs, then the line will be nothing.

Moreover, leaving aside the notion of the sign we 37 can destroy the line directly and show its inconceivability. For the line, as one may learn from the Geometers themselves, is "length without breadth," but when we have examined the matter closely, we shall not find either amongst intelligibles or amongst sensibles anything that is capable of being perceived as length without breadth. Not amongst sensibles, 38 since whatever sensible length we perceive we shall in every case perceive it as combined with a certain amount of breadth ; nor amongst intelligibles, inas- 39 much as we can conceive one length as narrower than another, but when we keep the same length invariably and in thought cut slices from its breadth and keep doing this up to a point, we shall conceive the breadth as growing less and less, but when we reach the point of finally depriving the length of breadth we shall no longer be imagining even length, but even the notion of length will be destroyed.—In general, 40 also, everything conceived is conceived in two main ways, either by way of clear impression or by way of transference from things clear, and this way is threefold,—by similarity, or by composition, or by analogy.

ἐνάργειαν νοεῖται τὸ λευκὸν καὶ τὸ μέλαν καὶ γλυκὺ καὶ πικρὸν, κατὰ δὲ τὴν ἀπὸ τῶν ἐναργῶν μετάβασιν ὁμοιωτικῶς μὲν νοεῖται καθάπερ ἀπὸ 41 τῆς Σωκράτους εἰκόνας Σωκράτης αὐτός, ἐπισυνθετικῶς δὲ καθάπερ ἀπὸ ἵππου καὶ ἀνθρώπου ἵπποκένταυρος· ἵππεια γὰρ καὶ βρότεια μίξαντες μέλη ἐφантаσιώθημεν τὸν μῆτε ἀνθρωπον μῆτε ἵππον ἀλλ' ἐξ ἀμφοτέρων σύνθετον ἵπποκένταυρον. 42 ἀναλογιστικῶς δὲ τι νοεῖται πάλιν κατὰ δύο τρόπους, ὅτε μὲν ἀξητικῶς ὅτε δὲ μειωτικῶς, οἶον ἀπὸ τῶν κοινῶν ἀνθρώπων,

οἶοι νῦν βροτοὶ εἰσιν,

παραυξητικῶς μὲν ἐνόησαμεν Κύκλωπα, ὃς οὐκ ἐΰκει

ἀνδρὶ γε σιτοφάγῳ ἀλλὰ ῥίψι ὑλήεντι,

μειωτικῶς δὲ τὸν πυγμαῖον ἀνθρωπον, ὃς οὐχ 43 ὑπέπεσεν ἡμῖν περιπτωτικῶς. τοσοῦτων δὴ νοήσεως ὄντων τρόπων, εἶπερ νοεῖται τι¹ ἀπλατές μῆκος, ἐξ ἀνάγκης ὀφείλει ἤτοι κατὰ περιπτωτικὴν ἐνάργειαν νοεῖσθαι ἢ κατὰ τὴν ἀπὸ τῶν ἐναργῶν μετάβασιν. ἀλλὰ κατὰ περιπτωτικὴν μὲν ἐνάργειαν οὐκ ἂν νοοῖτο· οὐδενὶ γὰρ περιεπέσομεν 44 μῆκει χωρὶς πλάτους. λείπεται οὖν κατὰ τὴν ἀπὸ τῶν ἐναργῶν μετάβασιν λέγειν αὐτὸ νανοησθαι· ὁ πάλιν τῶν ἀδυνατωτάτων. εἰ γὰρ οὕτως ἐνόηθη, ἤτοι πάντως κατὰ ὁμοίωσιν ἢ κατὰ ἐπισύνθεσιν ἐνοεῖτο ἢ κατὰ ἀναλογίαν· κατ' οὐδένα δὲ τούτων τῶν τρόπων εἰς ἔννοιαν ἐλθεῖν πέφυκεν, ὡς παραστήσομεν· οὐκ ἄρα νοεῖται τι μῆκος ἀπλατές.

¹ τι Heintz : τὸ mss., Bekk.

Thus, by clear impression are conceived the white, the black, the sweet and the bitter, and by transference from things clear are concepts due to similarity, —such as Socrates himself from a likeness of Socrates, and those due to composition,—such as the hippo- 41 centaur from horse and man, for by mixing the limbs of horse and man we have imagined the hippocentaur which is neither man nor horse but a compound of both. And a thing is conceived by way of analogy 42 also in two ways, sometimes by way of increase, sometimes by decrease ; for instance, from ordinary men—

Such mortals as now we see—

we conceive by way of increase the Cyclops who was

Less like a corn-eating man than a forest-clad peak of the mountains^a ;

and by way of decrease we conceive the pygmy whom we have not perceived through sense-impressions. Now the modes of conception being so many, if length 43 without breadth is conceived it must necessarily be conceived either by way of clear sense-impression or by way of transference from clear things ; but it will not be conceived by way of clear sense-impression ; for we have had no impression of any length without breadth. It remains, then, to say that it is conceived 44 by way of transference from clear things ; but this again is most impossible. For if it was conceived in this way, it was certainly conceived either through similarity or through composition or through analogy ; but in none of these ways can it naturally be conceived, as we shall establish ; therefore no length without breadth is conceived. For it is obviously im- 45

^a Cf. Hom. Od. ix. 191 Adv. Phys. i. 45, 395.

45 αὐτίκα γὰρ κατὰ μὲν τὴν ὁμοιότητα τῶν ἀμηχάνων
 ἐστὶ νοεῖν τι μῆκος ἀπλατές. οὐδὲν γὰρ ἔχομεν
 ἐν τοῖς φαινομένοις μῆκος χωρὶς πλάτους [νοού-
 46 μενον],¹ ἵνα νοήσωμεν ὁμοίον τι τούτῳ μῆκος
 ἀπλατές. τὸ γὰρ τιμὴ ὁμοιον γινωσκομένῳ πάντως
 ἐστὶν ὁμοιον, τῷ δὲ μὴ γινωσκομένῳ οὐδὲ ὁμοιον
 εὐρέει δυνατόν. ἐπεὶ οὖν οὐκ ἔχομεν ἐναργῶς
 ὑποπίπτον ἡμῖν μῆκος χωρὶς πλάτους, οὐδὲ
 47 ὁμοίον τι αὐτῷ δινησόμεθα νοεῖν. καὶ μὴν οὐδὲ
 κατ' ἐπισύνθεσιν οἷον τέ ἐστι προβαίνειν τοῖς
 γεωμέτραις αὐτοῦ τὴν ἐπίνοιαν· εἰπάτωσαν γὰρ
 ἡμῖν τίνα τῶν ἐκ περιπτώσεως ἐναργῶς γινωσκο-
 μένων μετὰ τίνων συνθέντες νοήσομεν τὸ ἀπλατές
 μῆκος, ὡς πρότερον ἐπ' ἀνθρώπου καὶ ἵππου
 48 ποιοῦντες ἐφαντασιούμεθα ἵπποκένταυρον. λεί-
 πεται οὖν ἐπὶ τὸν κατὰ ἀναλογιστικὴν αὐξήσιν ἢ
 μείωσιν τὸν (τρίτον)² τῆς νοήσεως αὐτοῖς τρόπον
 49 συμφεύγειν· ὃ πάλιν τῶν ἀπόρων θεωρεῖται. τὰ
 γὰρ κατὰ ἀναλογίαν νοούμενα ἔχει τι κοινὸν πρὸς
 τὰ ἀφ' ὧν νοεῖται, οἷον ἀπὸ τοῦ κοινοῦ μεγέθους
 τῶν ἀνθρώπων παραυξητικῶς ἐνόησαμεν τὸν
 Κύκλωπα καὶ μειωτικῶς τὸν πυγμαῖον, ὥστε
 εἶναι τι κοινὸν τοῖς κατὰ ἀναλογίαν νοουμένοις
 πρὸς ἐκεῖνα τὰ ἀφ' ὧν νοεῖται. οὐδὲν δ' ἔχομεν
 κοινὸν τοῦ τε ἀπλατοῦς καὶ τοῦ σὺν πλάτει νοου-
 μένου μῆκος, ἢ ἀπ' ἐκείνου ὀρμηθέντες νοήσωμεν
 50 τὸ ἀπλατές μῆκος. μὴ ἔχοντες δέ τι κοινὸν αὐτῶν
 οὐδὲ κατὰ ἀναλογίαν ποιήσασθαι τὴν τοῦ ἀπλατοῦς
 μῆκος νόησιν ἰσχύσομεν. ὅθεν εἰ ἕκαστον τῶν
 νοουμένων κατὰ τοὺς ἐκκεκίμενους νοεῖται τρόπους,
 δεδίδακται δὲ κατὰ μηδέν' αὐτῶν νοούμενον τὸ

¹ [νοούμενον] del. Heintz.² (τρίτον) add. cj. Bekk.

possible to conceive a length without breadth by way of similarity. For we have no length without breadth amongst things apparent by means of which we might conceive a similar length without breadth. For what 46 is similar to anything is certainly similar to a thing known, and it is impossible to find a thing similar to what is not known. Since, then, we possess no clear impression of a length without breadth, we shall not be able to conceive anything similar to it.—Nor yet is 47 it possible for the Geometers to get the notion of it by way of composition; for let them tell us which of the things clearly known from sense-impression are we to compound with which so as to conceive length without breadth, as we did before, in the case of man and horse, when we imagined the hippocentaur. It remains, then, for them to take refuge in 48 the third mode of conception, that of analogy, by way of increase or decrease; but this again is seen to be hopeless. For things conceived by analogy have 49 something in common with the things wherefrom they are conceived, as for instance from the common size of men we conceived by way of increase the Cyclops and by way of decrease the pygmy, so that things conceived by analogy have something in common with the things wherefrom they are conceived. But we find nothing in common between the length that is without breadth and that conceived along with breadth, so that by setting out from the latter we might conceive length without breadth. But if we find nothing common to them both we shall 50 not be able to form the conception of length without breadth by analogy. Hence, if each of the concepts is conceived according to the modes described, and it has been shown that length without breadth is

ἀπλατές μήκος, ἀνεπινοήτόν ἐστι τὸ ἀπλατές μήκος.
 51 Ὅμως δ' οὖν καὶ πρὸς τοὺς οὕτως ἐναργεῖς ἐλέγχους πειρῶνται κατὰ τὸ δυνατόν ἀνδριζόμενοι λέγειν οἱ γεωμέτραι ὅτι κατ' ἐπίτασιν νοεῖται τὸ
 52 ἀπλατές μήκος. λαβόντες γοῦν ὅποιονδήποτε μήκος σὺν ποσῷ πλάτει, φασὶν ὅτι μειοῦμεν κατ' ἐπίτασιν τοῦτ' ἐπιτάτος αἰεὶ καὶ μᾶλλον τὴν στενότητα ἐπιτείνοντες, εἶθ' οὕτως τὸ κατ' ἐπίτασιν νοούμενον ἀπλατές εἶναι μήκος λέγομεν· εἰ γὰρ κατ' ὀλίγον ἐλαττοῦνται στενοῦμενον τὸ πλάτος κατ' ἐπίτασιν, ἐλεύσεταιί ποτε καὶ εἰς ἀπλατές μήκος, καταληξάσης εἰς τοῦτο τῆς νοήσεως.
 53 ἀλλὰ μὴν ἐδείξαμεν, ἔρει τις, ὅτι ἡ παντελῆς στέρησις τοῦ πλάτους ἀναίρεσίς ἐστι καὶ τοῦ μήκους. εἶπα τὸ κατ' ἐπίτασιν τίνος νοούμενον οὐχ ἕτερόν ἐστι τοῦ προεπινοηθέντος, ἀλλ'
 54 αὐτὸ ἐκείνο ἐπιτεταμένον. ἐπεὶ οὖν ἀπὸ τοῦ ποσὸν ἔχοντος πλάτος κατ' ἐπίτασιν στενότητος νοησαί τι θέλομεν, τὸ μὲν πάντῃ πάντως ἀπλατές μήκος οὐκ ἐπινοήσομεν (ἕτερογενές γάρ ἐστι), στενὸν δέ τι ληψόμεθα πλάτος, ὥστε τὴν κατάληξιν τῆς νοήσεως ἐν ἐλαχιστοτάτῳ γενέσθαι πλάτει, πλὴν ὁμως πλάτει, τὸ δὲ μετὰ τοῦτο γενέσθαι τὴν ἐπιβολὴν τῆς διανοίας εἰς ἕτερογενές, καὶ ὃ μήτε
 55 μήκός ἐστι μήτε πλάτος. εἴπερ τε δυνατόν ἐστι μήκός τι νοήσαντας σὺν ποσῷ πλάτει στερήσει τοῦ πλάτους λαβεῖν μήκος ἀπλατές, ἐνδέξεταιί ποτε κατὰ τὸν ὁμοιον τρόπον καὶ σάρκα σὺν τρωτῷ ιδιώματι νοήσαντας στερήσει τοῦ τρωτοῦ

^a Cf. *Adv. Phys.* i. 403 ff.

^b Cf. § 39.

conceived according to none of them, then length without breadth is inconceivable.

Notwithstanding, even to arguments so clear as 51 these the Geometers manfully endeavour to reply, as best they can, saying that length without breadth is conceived by way of "intension."^a Thus, when we 52 have taken any given length along with a certain amount of breadth, they say that we diminish this breadth by "intension," intensifying ever more and more its narrowness, and so in the end we say that what is thus conceived by way of intension is length without breadth; for if the breadth is lessened little by little by being narrowed through intension, at some time it will come to be a length without breadth, the conception ending up in this. But surely, some- 53 one will say, we have proved that complete privation of breadth is also the abolition of length.^b Also, that which is conceived through the intension of something is not different from the thing preconceived but just that thing intensified. Since, then, we desire to con- 54 ceive a thing by way of intension of its narrowness from that which has a certain amount of breadth, we shall not conceive length which is entirely without breadth (for that is different in kind), but we shall apprehend a narrow breadth, so that the conception ends up in the very least amount of breadth, but still breadth all the same, and after this the notion in the mind passes into something different in nature, which is neither length nor breadth. And if it is possible to 55 apprehend length without breadth by privation of the breadth when we have conceived a certain length along with a certain amount of breadth, then it will be feasible in like manner when we have conceived flesh with the quality of vulnerability to conceive

ιδιώματος νοῆσαι ἄπρωτόν τε καὶ ἀπαθῆ ἰσάρκα,
 56 δυνατὸν δὲ ἔσται καὶ σῶμα νοῆσαντας μετὰ
 ἀντιτύπου ιδιώματος στερήσει τῆς ἀντιτυπίας λα-
 βεῖν τι μὴ ἀντιτυποῦν σῶμα. ὅπερ τελέως ἔστιν
 ἀδύνατον καὶ παρὰ τὴν κοινὴν τῶν ἀνθρώπων
 ἔννοιαν· τὸ γὰρ ἄπρωτον νοούμενον ἡμῖν οὐκέτι
 ἔστι σὰρξ, ἐπεὶπερ σὺν τῷ τρωτῷ ιδιώματι ἡ
 σὰρξ ἐνοεῖτο ὡς σὰρξ, καὶ τὸ μὴ ἀντιτυποῦν σῶ-
 μα οὐκέτι νοεῖται σῶμα· σὺν γὰρ τῷ ἀντιτύπῳ
 ιδιώματι ἐνοεῖτο τὸ σῶμα, καθὼ ἔστι σῶμα. ὅθεν
 καὶ τὸ νοούμενον μῆκος χωρὶς πλάτους οὐκ ἂν
 εἶη μῆκος· σὺν γὰρ τῷ ποσὸν ἔχειν πλάτος τὸ
 μῆκος ὡς μῆκος νοεῖται.

57 Ἄλλ' ὁ γε Ἀριστοτέλης, καίπερ ποικίλως κατα-
 σκευασθείσης τῆς τοῦ πράγματος ἀνεπινοησίας
 καὶ οὐκ ἐν ὀλίγῳ κειμένων ταραχῶ τῶν γεωμετρῶν,
 φησὶ μὴ ἀδιανόητον εἶναι τὸ ὑπὸ τούτων λεγόμενον
 μῆκος ἀπλατές, ἀλλὰ δύνασθαι χωρὶς πάσης περι-
 σκελείας εἰς ἔννοιαν ἡμῖν ἐλθεῖν. ἴστησι δὲ τὸν
 λόγον ἐπὶ τινος ἐναργεστέρου ὑποδείγματος καὶ

58 σαφοῦς. τὸ γοῦν τοῦ τοίχου μῆκος, φησί, λαμβά-
 νομεν μὴ συνεπιβάλλοντες αὐτοῦ τῷ πλάτει,
 διόπερ ἐνέσται καὶ τὸ παρὰ τοῖς γεωμέτραις
 λεγόμενον μῆκος χωρὶς πλάτους τινὸς ἐπινοεῖν,
 ἐπεὶπερ ὅψις τῶν ἀδήλων ἔστι τὰ φαινόμενα,
 πλανώμενος ἢ τάχα κατασοφίζόμενος ἡμᾶς. ὅταν
 γὰρ τὸ τοῦ τοίχου μῆκος χωρὶς πλάτους νοώμεν,
 οὐ χωρὶς παντὸς πλάτους αὐτοῦ νοούμεν, ἀλλὰ
 χωρὶς τοῦ περὶ τῷ τοίχῳ καθεστῶτος πλάτους.

59 ὅθεν καὶ ἐνδέχεται συμπλέξαντας τὸ τοῦ τοίχου

* Cf. P.H. iii. 40.

ᵇ Cf. Adv. Phys. i. 412.

• Cf. § 23.

invulnerable and impassive flesh by privation of the
 quality of vulnerability; and it will be possible by 56
 conceiving body with the quality of solidity,^a and by
 privation of the solidity, to perceive a non-solid body.
 But this is perfectly impossible and contrary to the
 common notion of mankind. For that which we
 conceive as invulnerable is no longer flesh, for flesh
 includes the quality of vulnerability when conceived
 as flesh, and the non-solid body is no longer con-
 ceived as body, for body, *qua* body, is conceived as
 including the quality of solidity. Hence, the length
 conceived without breadth will not be length, for
 length, as length, is conceived as including the
 quality of having a certain amount of breadth.

But although the inconceivability of the thing has 57
 been established in a variety of ways, and the
 Geometers are in a state of no little confusion, yet
 Aristotle affirms that the length without breadth they
 talk of is not inconceivable but can come into our
 minds without any difficulty.^b He bases his argument
 on an obvious and clear example. Thus we perceive 58
 the length of a wall, he says, without thinking
 simultaneously of its breadth, and therefore it will
 be possible also to conceive of the "length without
 any breadth" talked of by the Geometers, seeing
 that "things evident are the vision of things non-
 evident"^c; but he is in error, or perhaps hum-
 bugging us. For whenever we conceive the length
 of the wall without breadth, we do not conceive it as
 wholly without breadth but without the breadth
 which belongs to the wall. And thus it is possible for 59
 us by combining the length of the wall with a certain

μηκός τινι πλάτει καὶ ὀψωδηποτοῦν νόησιν αὐτοῦ ποιεῖσθαι· ὥστε μήκος λαμβάνεσθαι τὰ νῦν οὐ χωρὶς παντὸς πλάτους, καθάπερ ἀξιούσιν οἱ ἀπὸ τῶν μαθημάτων, ἀλλὰ χωρὶς τοῦδέ τινος πλάτους· προύκειτο δὲ τῷ Ἀριστοτέλει παραστήσαι οὐχ ὅτι τινὸς πλάτους ἀμοιρεῖ τὸ κατὰ τοὺς γεωμέτρας λεγόμενον μήκος, ἀλλ' ὅτι παντὸς ἐστέρηται πλάτους· ὅπερ οὐκ ἀπέδειξεν.

- 60 Ταῦτα μὲν οὖν περὶ τούτων· ἐπειδὴ δὲ οἱ γεωμέτραι καὶ πέρας ἐπιφανείας εἶναι λέγουσι τὴν γραμμὴν, ὃ ἐστὶ μήκος ἀπλατές, φέρε κοινότερον περὶ γραμμῶν ἅμα καὶ ἐπιφανειῶν διαπορώμενον· οὕτω γὰρ εὐδιάβλητος καὶ ὁ ἐπὶ τὸ σῶμα γενήσεται
- 61 λόγος· εἰ γὰρ ἡ γραμμὴ πέρας ἐστὶν ἐπιφανείας, μήκος ἀπλατές καθεστῶσα, δῆλον ὡς ὅταν ἐπιφάνεια ἐπιφάνεια παρατεθῆ, ἤτοι παράλληλοι γενήσονται δύο γραμμαὶ ἢ μία ἀμφοτέραι· καὶ εἰ μὲν μία αἱ δύο γραμμαὶ γίνονται, ἐπεὶ ἡ γραμμὴ πέρας ἐστὶν ἐπιφανείας, ἡ δὲ ἐπιφάνεια πέρας σώματος, τῶν μὲν δυοῖν γραμμῶν μιᾶς ἅμα γινομένων γενήσονται καὶ αἱ δύο ἐπιφάνειαι μία ἐπιφάνεια, τῶν δὲ δυοῖν ἐπιφανειῶν μιᾶς ἐπιφανείας γενηθεισῶν ἐξ ἀνάγκης ἔσται καὶ τὰ δύο σώματα ἐν σώμα, τῶν δὲ δυοῖν σωμάτων ἑνὸς γινομένων ἢ παράθεσις οὐκ ἔσται παράθεσις ἀλλ'
- 62 ἔνωσις· ὅπερ ἐστὶν ἀδύνατον· ἐπὶ τινῶν μὲν γὰρ σωμάτων δύναται ἡ παράθεσις ἔνωσις γίνεσθαι, καθάπερ ὕδατος καὶ τῶν εὐκότων τούτω, ἐπὶ τινῶν δὲ οὐδαμῶς· καὶ γὰρ λίθος λίθῳ παρατιθέμενος καὶ σίδηρος σιδήρῳ καὶ ἀδάμας ἀδάμαντι κατὰ γραμμὴν οὐχ ἐνοῦνται· ὥστε οὐκ ἂν γένοιντο αἱ δύο γραμμαὶ μία γραμμὴ· καὶ γὰρ
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amount, however small, of breadth to form a conception of it ; so that in this case the length is perceived not without any breadth at all, as the Mathematicians claim, but without this particular breadth. But Aristotle's problem was to prove not that the length talked of by the Geometers is devoid of a certain breadth, but that it is wholly deprived of breadth ; and this he has not proved.

So much then, concerning these matters ; and seeing 60 that the Geometers declare that the line, which is "length without breadth," is also "the limit of the plane," come and let us raise doubts in a more general way concerning both lines and planes ; for thus the statement about body will become easy to refute. If, 61 then, the line, being length without breadth, is the limit of the plane, it is evident that when a plane is set beside a plane^a either the two lines will be parallel or both will become one. And if the two lines become one, since the line is the limit of the plane, and the plane the limit of the body, as the two lines become one the two planes also will simultaneously become one plane, and when the two planes have become one plane the two bodies also will necessarily be one body, and when the two bodies have become one, the juxtaposition will not be juxtaposition but unification.^b But this is impossible. For while 62 juxtaposition can become unification in some cases, as in that of water and things like it, in some cases it cannot ; for when stone is set beside stone and iron beside iron and adamant beside adamant they are not unified in respect of their lines. Consequently, the two lines will not become one line.—Moreover,

^a Cf. §§ 29 ff.

^b Cf. P.H. iii. 42 ; Adv. Phys. i. 260 ff.

ἄλλως, εἰ ἔνωσίς ἐστι τῶν δύο γραμμῶν μιᾶς
γενομένων καὶ σύμφυσις τῶν σωμάτων, ἔχρη τὸν
χωρισμὸν γίνεσθαι μὴ κατὰ τὰ αὐτὰ αὐτῶν πέρατα
ἀλλὰ κατὰ ἄλλα καὶ ἄλλα μέρη ἀποσπωμένων,
ὥστε καὶ φθορὰν συμβαίνειν. οὐχὶ δέ γε τοῦτο
γινόμενον θεωρεῖται, ἀλλὰ τὰ πέρατα τῶν σωμάτων
καὶ πρὸ τῆς παραθέσεως καὶ μετὰ τὸν χωρισμὸν
τοιαῦτά ἐστιν ὅποια καὶ ἐν τῇ παραθέσει ὄντα
πρότερον ἐφαίνετο.¹ οὐ τοῖνυν αἱ δύο γραμμαὶ
63 μῖα γίνονται. οὐ μὴν ἀλλ' εἴπερ αἱ δύο γραμμαὶ
μῖα γίνονται, δεήσει τὰ παρατιθέμενα ἀλλήλοις
σώματα ἐνὶ ἄκρῳ ἐλάσσω εἶναι· γεγόνασι γὰρ αἱ
δύο μῖα, ἥτις ἐν ἔχειν ὀφείλει πέρασ τε καὶ ἄκρον.
οὐχὶ δέ γε τὰ παρατιθέμενα ἀλλήλοις σώματα
ἐνὶ ἄκρῳ γίνεται ἐλάσσονα, ὥστε αἱ δύο γραμμαὶ
64 οὐκ ἂν γένοιτο μῖα γραμμὴ. εἰ δὲ παράλληλοι
γίνονται δύο γραμμαὶ κατὰ παράθεσιν δυοῖν
σωμάτων, τὸ ἐκ τῶν δυοῖν γραμμῶν μείζον ἔσται
τῆς μιᾶς γραμμῆς. εἰ δὲ τὸ ἐκ τῶν δυοῖν γινόμενον
γραμμῶν μείζον ἐστι τῆς μιᾶς γραμμῆς,
ἔχει ἂν ἑκάτερα αὐτῶν πλάτος, ὃ μεθ' ἑτέρας
μείζονα ποιεῖ τὴν διάστασιν, καὶ οὕτως οὐκ ἔστιν
ἀπλατὲς μῆκος ἢ γραμμὴ. δυοῖν οὖν θάτερον, ἢ
ἀναιρεῖν δεῖ τὴν ἐνάργειαν, ἢ μενούσης ταύτης
ἀθετεῖν τὴν τῶν γεωμετρῶν ἐπίνοιαν, καθ' ἣν
οἴονται τὴν γραμμὴν μῆκος ἀπλατὲς ὑπάρχειν.
65 Καὶ δὴ ταῦτα μὲν προηγουμένως ῥητέον ἐστὶν
ἡμῖν πρὸς τὰς τῆς γεωμετρίας ἀρχάς· μεταβάντες
δὲ διδάσκωμεν ὅτι καὶ κατὰ τὰς ἐκείνων αὐτῶν
ὑποθέσεις οὐχ οἰὸν τε προβαίνειν τὴν ζήτησιν.
ἀρέσκει τοῖνυν αὐτοῖς τὴν εὐθεῖαν γραμμὴν, ὡς

¹ ἐφαίνετο cj. Bekk. : ἐφαίνοντο mss., Bekk.

if there is unification of the two lines which have become one and natural junction of the bodies, the separation ought to take place when they are pulled asunder, not at the same limits but now at one part and now at another, so that as a result they perish. This, however, is not found to occur, but the limits of the bodies both before the juxtaposition and after the separation are just the same as they originally appeared to be during the juxtaposition. So the two lines do not become one.—If, however, the two 63 lines do become one, the bodies set beside each other will have to be less by one extremity; for the two have become one, and this must have one limit and extremity. But the bodies set beside each other do not become less by one extremity, so that the two lines will not become one line.—And if the two lines 64 are parallel in the juxtaposition of two bodies, that which results from the two lines will be greater than the one line. But if that which results from the two lines is greater than the one line, one of the two will have breadth, which along with the other will make the dimension greater, and thus the line is not length without breadth.—Of two things one, then,—we must either do away with the evidence of the senses, or, if this remains unshaken, we must disallow the notion of the Geometers which leads them to suppose that the line is “length without breadth.”

This, then, is what we have primarily had to say 65 against the Geometers' principles; so now let us pass on and show that on their own assumptions it is not possible for their investigation to go forward. Thus, they are fain to believe, as we said above,^a that the

^a Cf. § 26.

καὶ ἀνώτερον ἐλέγομεν, στρεφομένην πᾶσιν αὐτῆς τοῖς μέρεσι κύκλους γράφειν· ὥπερ θεωρήματι ὄντι συνεκτικωτάτῳ μαχόμενον ἔστι τὸ τὴν γραμ-
 66 μὴν μῆκος ἀπλατῆς ὑπάρχειν. ζητῶμεν δὲ τὸν τρόπον τούτου. εἰ γὰρ κατ' αὐτοὺς πᾶν μέρος τῆς γραμμῆς ἔχει σημεῖον, τὸ δὲ σημεῖον στρεφό-
 μενον κύκλον γράφει, δεῖσει κατ' αὐτούς, ὅταν ἡ εὐθεῖα γραμμὴ στρεφομένη καὶ πᾶσι τοῖς ἑαυτῆς μέρεσι κυκλογραφοῦσα τὸ διάστημα καταμετρήῃ τὸ τῆς ἀπὸ τοῦ κέντρου μέχρι τῆς ἐξωτάτω περι-
 φερείας ἐπιπέδου, τότε ἦτοι συνεχεῖς ἀλλήλοις ὑπάρχων τούς καταγραφομένους κύκλους ἢ δι-
 67 εστώτας ἀπ' ἀλλήλων. ἀλλ' εἰ μὲν διεστώσιν ἀπ' ἀλλήλων, ἀκολουθήσει μέρος τι εἶναι τῆς ἐπιπέδου τὸ μὴ κυκλογραφούμενον, καὶ τῆς εὐθείας μέρος τὸ κατὰ τούτου μὲν φερόμενον τοῦ διαστήματος, μὴ κυκλογραφοῦν δέ. ὅπερ ἔστιν ἀτοπον. ἡ γὰρ οὐκ ἔχει κατὰ τοῦτο τὸ μέρος σημεῖον ἢ εὐθεῖα γραμμῆ, ἢ ἔχουσα οὐ καταγράφει κύκλον, ὦν ἑκάτερον παρὰ τὸν γεωμετρικὸν ἔστι λόγον· καὶ πᾶν γὰρ μέρος τῆς γραμμῆς σημεῖον ἔχειν φασί,
 68 καὶ πᾶν σημεῖον στρεφόμενον κυκλογραφεῖν. εἰ δὲ συνεχεῖς ἀλλήλοις ὑπάρχειν οἴονται τοὺς κύκλους, ἦτοι οὕτως εἰσὶ συνεχεῖς ὡς τὸν αὐτὸν ἐπέχειν τόπον, ἢ ὥστε ἄλλον παρ' ἄλλον τετάχθαι μηδενὸς σημείου μεταξύ πίπτοντος· πᾶν γὰρ σημεῖον τὸ μεταξύ κατ' ἐπίνοιαν πίπτον ὀφείλει καὶ αὐτὸ κύκλον γράφειν. καὶ εἰ μὲν τὸν αὐτὸν ἐπέχουσι τόπον πάντες, εἰς γενήσεται κύκλος, καὶ διὰ τοῦτο τῷ ἐλαχίστῳ κύκλῳ καὶ πρὸς τῷ κέντρῳ καθ-
 εστώτι ὁ μείζων καὶ ἐξωτάτῳ καὶ πάντων περι-
 69 ληπτικὸς καθεστῶς κύκλος ἴσος γενήσεται· εἰ γὰρ

straight line by revolving describes circles with all its parts ; but the view that the line is length without breadth is in conflict with this most convincing theorem. Let us probe the matter in this way. If, 66 as they say, every part of the line has a sign, and the sign as it revolves describes a circle, then, whenever the straight line by revolving and describing circles with all its parts measures off the distance from the centre to the outermost circumference of the plane, it will be necessary, according to them, that the circles described should be either continuous with one another or separate from one another. But if they are 67 separate from one another it will follow that there is a certain part of the plane which is not encircled, and a part of the straight line which moves over this interval but does not describe a circle. But this is absurd. For either the straight line has no sign in this part, or having one does not describe a circle ; but each of these alternatives is contrary to geometrical doctrine ; for they assert that every part of the line has a sign, and also that every sign when revolving describes a circle. And if they suppose 68 that the circles are continuous with one another, they are continuous either in such a way as to occupy the same place or so as to be ranged in order one beside another with no sign falling between ; for every sign which is conceived as falling between must of itself describe a circle. But if they all occupy the same place, there will be one circle, and therefore the circle which is greater and outermost and inclusive of them all will be equal to the smallest circle which is at

ὁ μὲν ἔξωτάτῳ κύκλος καὶ πρὸς αὐτῇ τῇ περι-
 φερείᾳ μείζον ἐπέχει διάστημα καὶ ὁ ἐσωτάτῳ
 πρὸς τῷ κέντρῳ κύκλος μικρὸν ἐπέχει διάστημα,
 πάντες δὲ οἱ κύκλοι τὸν αὐτὸν ἐπέχουσι τόπον, ὁ
 τὸ μείζον ἐπέχων διάστημα ἴσος γενήσεται τῷ
 <τὸ>¹ ἐλάχιστον ἐπέχοντι διάστημα· ὅπερ ἐστὶν
 ἀπεμφαῖνον. οὐ τοίνυν οὕτως εἰσὶ συνεχεῖς οἱ
 70 κύκλοι ὡς τὸν αὐτὸν τόπον ἐπέχουν. εἰ δὲ παράλ-
 ληλοι τυγχάνουσιν ὥστε μεταξύ τι μὴ πίπτειν
 ἀμερές σημεῖον, συμπληρώσουσι τὸ ἀπὸ τοῦ κέν-
 τρου μέχρι τῆς περιφερείας πλάτος. εἰ δὲ γε
 συμπληρώσουσιν, ἐπέχουσι τι πλάτος. ἦσαν δὲ
 γε οὗτοι γραμμαῖ. αἱ ἄρα γραμμαὶ ἔχουσι τι
 πλάτος καὶ οὐκ ἀπλατεῖς καθεστήκασιν.

71 Ἀπὸ δὲ τῆς αὐτῆς δυνάμεως ὀρμώμενοι ὁμοί-
 τροπον τῇ προαποδοθείσῃ συνθήσομεν ἐπιχείρησιν.
 ἐπεὶ γὰρ φασὶ τὴν κυκλογραφοῦσαν εὐθείαν γραμ-
 μὴν δι' ἑαυτῆς τὸν κύκλον καταγράφειν, συνερω-
 τῶντες αὐτοὺς φήσομεν, εἰ ἢ κυκλογραφοῦσα
 εὐθεῖα γραμμὴ δι' ἑαυτῆς τὸν κύκλον καταγράφειν
 πέφυκεν, οὐκ ἐστὶ μήκος ἀπλατῆς ἢ γραμμῆ· ἀλλὰ
 μὴν ἢ κυκλογραφοῦσα εὐθεῖα γραμμὴ δι' ἑαυτῆς
 τὸν κύκλον καταγράφει, ὡς ἐκεῖνοι φασίν· οὐκ
 ἄρα μήκος ἐστὶν ἀπλατῆς ἢ γραμμῆ, ὡς ἡμεῖς
 72 τοῦτο ἀκόλουθον ὃν ἐκείνοις διδάξομεν. ὅταν
 γὰρ ἢ ἀπὸ τοῦ κέντρου ἀγομένη εὐθεῖα στρέφηται
 καὶ δι' ἑαυτῆς καταγράφῃ κύκλον, τότε ἦτοι κατὰ
 πάντων τῶν μερῶν τοῦ ἐντὸς τῆς περιφερείας
 πλάτους φέρεται ἢ εὐθεῖα γραμμῆ, ἢ οὐ κατὰ
 πάντων ἀλλὰ κατὰ τινῶν. καὶ εἰ μὲν κατὰ τινῶν
 φέρεται, οὐδὲ καταγράφει κύκλον, καθ' ὧν μὲν
 μερῶν φερομένη καθ' ὧν δὲ οὐ. εἰ δὲ κατὰ πάντων

the centre; for if the outermost circle, that which is on 69
 the very circumference, occupies a greater distance,
 and the innermost circle at the centre occupies a little
 distance, and all the circles occupy the same place,
 then that which occupies the greater distance will be
 equal to that which occupies the least distance,—
 which is absurd. So, then, the circles are not contin-
 uous in such a way as to occupy the same place.
 And if they are parallel so that no indivisible sign falls 70
 between, they will fill up the breadth from the centre
 to the circumference. But if they fill it up, they
 occupy some breadth. Yet these circles are lines.
 Lines, therefore, possess a certain breadth and are
 not “without breadth.”

Starting with the same theory we shall construct 71
 a confutation similar to that already stated. Since
 they assert that the straight line which describes a
 circle describes the circle of itself, we shall reply with
 the objection,—if the straight line which describes a
 circle is by nature such as to describe the circle of
 itself, the line is not length without breadth; but in
 fact, as they assert, the straight line which describes
 a circle does describe the circle of itself; therefore
 the line is not length without breadth, this being the
 consequence of their theory, as we shall show. For 72
 when the straight line drawn from the centre revolves
 and of itself describes a circle, the straight line then
 either moves over all the parts of the breadth within
 the circumference, or not over all but over some.
 And if it moves over some, it does not describe a
 circle, as it moves over some parts but not over others.

¹ <τὸ> add. cj. Bekk.

φέρεται, ὅλον τὸ τῆς περιφερείας καταμετρήσει
 73 πλάτος, πλάτος δὲ καταμετροῦσα ἕξει πλάτος· τὸ
 γὰρ τοῦ πλάτους καταμετρητικὸν ὀφείλει πλάτος
 ἔχειν, ὡς καταμετρεῖ. εἰ ἄρα ἡ¹ εὐθεία γραμμὴ
 κυκλογραφοῦσα² ὅλον καταμετρεῖ τὸ πλάτος <καὶ
 ἔχει πλάτος>,³ [καὶ] οὐκ ἔστι μῆκος ἀπλατὲς ἢ
 γραμμῆ.

74 Τὸ δ' αὐτὸ σαφέστερον δειχθήσεται καὶ ὅταν
 λέγωσιν οἱ γεωμέτραι τὴν πλάγιον τοῦ τετραγώνου
 πλευρὰν καταγομένην τὸ παραλληλόγραμμον ἐπί-
 πεδον καταμετρεῖν. εἴπερ γὰρ μῆκος ἀπλατὲς
 ἔστιν ἢ πλάγιος πλευρὰ τοῦ τετραγώνου κατ-
 αγομένη, οὐ καταμετρήσει τὸ παραλληλόγραμμον
 ἐπίπεδον τοῦ τετραγώνου δι' ἑαυτῆς· τὸ γὰρ κατα-
 μετρητικὸν πλάτους ὀφείλει πλάτος ἔχειν. εἰ δὲ
 καταμετρεῖ, πάντως πλάτος ἔχει. ὥστε πάλιν ἢ
 τοῦτο τὸ θεώρημα ψεῦδος εἶναι τοῖς γεωμέτραις,
 ἢ μηδὲν ὑπάρχειν τὸ νοούμενον μῆκος ἀπλατὲς.

75 Τὸν τε κύλινδρον φασὶ κατ' εὐθείαν γραμμὴν
 ἄπτεσθαι τῆς ἐπιπέδου καὶ ἐκκυλιόμενον τῇ ἀνὰ
 μέρος ἄλλων καὶ ἄλλων εὐθειῶν θέσει καταμετρεῖν
 τὴν ἐπίπεδον. ἀλλ' εἰ καὶ κατ' εὐθείαν ἄπτεται
 τῆς ἐπιπέδου ὁ κύλινδρος καὶ κυλιόμενος τῇ ἀνὰ
 μέρος ἄλλων καὶ ἄλλων εὐθειῶν θέσει καταμετρεῖ
 τὴν ἐπίπεδον, πάντως καὶ ἢ ἐπίπεδος συνέστηκεν
 ἐξ εὐθειῶν καὶ ἢ ἐπιφάνεια τοῦ κυλίνδρου πάλιν
 76 ἐξ εὐθειῶν πεπλήρωται. ὅθεν ἐπεὶ ἔχει καὶ ἢ
 ἐπίπεδος πλάτος καὶ ἢ ἐπιφάνεια τοῦ κυλίνδρου
 ὁμοίως, καὶ οὐκ ἔστιν ἀπλατῆς, τὸ δὲ πλάτους

¹ εἰ ἄρα ἢ Heintz : ἢ ἄρα mss., Bekk.

² κυκλογραφοῦσα Heintz : κυκλοφοροῦσα mss., Bekk.

³ (καὶ ἔχει πλάτος) addidi.

And if it moves over all, it will measure out all the
 breadth of the circumference, and measuring out 73
 breadth it will possess breadth; for that which is
 capable of measuring out breadth must possess
 breadth wherewith it measures. Therefore, if the
 straight line in describing a circle measures out all
 the breadth and possesses breadth, the line is not
 "length without breadth."

The same thing will be shown more clearly when 74
 the Geometers state that when the downward side
 of the square is drawn it measures out the plane
 bounded by the parallel lines. For if it is length
 without breadth, the downward side of the square
 when drawn will not of itself measure out the plane
 surface of the square bounded by the parallel lines;
 for that which is capable of measuring out a breadth
 must possess breadth. And if it measures out, it
 certainly possesses breadth. So that, once again,
 either this theorem of the Geometers is false, or the
 concept "length without breadth" is nothing.

Also, they say that the cylinder touches the plane 75
 along a straight line and when rolling forward, by
 the placing of straight lines in turn, one after an-
 other, measures out the plane. But if the cylinder
 touches the plane along a straight line and when
 rolling measures out the plane by placing its straight
 lines in turn, one after another, the plane certainly
 is composed of straight lines and the surface of the
 cylinder, too, is made up of straight lines. Hence, 76
 since the plane possesses breadth, and the surface
 of the cylinder likewise is not without breadth, and

ποιητικὸν ὀφείλει καὶ αὐτὸ πλάτος ἔχειν, δῆλον οὖν ὡς ὅτι καὶ αἱ εὐθείαι γραμμαὶ συμπληρωτικαὶ οὐσαι τοῦ πλάτους ἐξ ἀνάγκης πλάτος ἔχουσιν, ὥστε μηδὲν εἶναι μῆκος ἀπλατές, διὰ δὲ τοῦτο μηδὲ γραμμῆν.

- 77 Εἰ δὲ καὶ δοίημεν τὴν γραμμὴν μῆκος εἶναι ἀπλατές, τὰ ἀκόλουθα τούτοις ἔτι τούτων ἀπορώτερα. ὥσπερ γὰρ τὸ σημεῖον ῥυὲν ποιεῖ γραμμῆν, οὕτω καὶ ἡ γραμμὴ ῥυεῖσα ποιεῖ ἐπιφάνειαν κατ' αὐτούς, ἥτις ἐστὶ, φασί, πέρασ σώματος δύο
- 78 ἔχον διαστάσεις, μῆκος καὶ πλάτος. εὔπερ οὖν ἡ ἐπιφάνεια πέρασ ἐστὶ σώματος, τό γε σῶμα πάντως πεπερασμένον ἐστίν· καὶ εἰ τοῦτο, ὅτε παρατίθεται δύο σώματα ἀλλήλοις, τότε ἤτοι τὰ πέρατα τῶν περάτων ἢ τὰ πεπερατωμένα τῶν πεπερατωμένων ἄψεται, ἢ καὶ τὰ πεπερατωμένα τῶν πεπερατωμένων καὶ τὰ πέρατα τῶν περάτων, οἷον ἐπὶ τοῦ ἀμφορέως, εἰ νοήσαιμεν πέρασ μὲν τὸ ἔξωθεν ὄστρακον πεπερατωμένον δὲ τὸν ἐν αὐτῷ οἶνον. δυοῖν οὖν ἀμφορέων παραβληθέντων
- 79 ἀλλήλοις ἤτοι τὸ ὄστρακον τοῦ ὄστράκου ἄψεται ἢ ὁ οἶνος τοῦ οἴνου ἢ καὶ τὸ ὄστρακον τοῦ ὄστράκου καὶ ὁ οἶνος τοῦ οἴνου. καὶ εἰ μὲν τὰ πέρατα τῶν περάτων ἄπτεται, τὰ πεπερατωμένα ἀλλήλων οὐχ ἄψεται, τουτέστι τὰ σώματα, ὅπερ ἦν ἀπεμφαίνον. εἰ δὲ τὰ πεπερατωμένα μὲν ἀλλήλων ἄψεται, τουτέστι τὰ σώματα, τὰ πέρατα δὲ ἀλλήλων οὐχ ἄψεται, ἐκτὸς ἔσται τὰ σώματα τῶν οἰκείων
- 80 περάτων. εἰ δὲ καὶ τὰ πέρατα τῶν περάτων ἄπτεται καὶ τὰ πεπερατωμένα τῶν πεπερατωμένων, ἐπισυνθήσομεν τὰς ἀπορίας· ἢ μὲν γὰρ τὰ πέρατα

what is productive of breadth must itself possess breadth, it is plain that the straight lines too, as they serve to fill up the breadth, necessarily possess breadth, so that no "length without breadth" exists, and consequently no line.

And even if we should grant that the line is 77 "length without breadth," the consequences of this will be even more hopeless than those stated. For as the sign when it has flowed ^a makes the line, so also the line when it has flowed makes, according to them, the plane, which is, they say, "the limit of the body," possessing two dimensions, length and breadth. If, then, the plane is the limit of the body, 78 the body certainly is limited; and if so, when two bodies are set beside each other, then either the limits will touch the limits or the things limited the things limited, or the things limited will touch the things limited and also the limits the limits,—as though, in the case of a jar, we were to conceive the external earthenware as the limit, and the wine 79 within it as the thing limited.^b When, then, two jars are set beside each other, either the ware will touch the ware or the wine the wine, or the ware will touch the ware and also the wine the wine. But if the limits touch the limits the things limited (that is, the bodies) will not touch each other, which is absurd. And if the things limited (that is, the bodies) shall touch each other, and the limits shall not touch each other, the bodies will be outside their own limits. And if both the limits touch the limits and the things 80 limited the things limited, we shall be multiplying the difficulties; for where the limits touch each other,

^a Cf. § 29; *Adv. Phys.* i. 376.

^b Cf. *Adv. Phys.* i. 431.

ἀλλήλων ἄπτεται, τὰ πεπερατωμένα οὐχ ἄψεται ἀλλήλων, ἢ δὲ τὰ πεπερατωμένα, ἐκτὸς ἔσται τὰ σώματα τῶν οἰκείων περάτων, ἐπεὶ πέρασ μὲν 81 ἔστιν ἢ ἐπιφάνεια, πεπερασμένον δὲ τὸ σῶμα. τὰ τε πέρατα σώματά ἐστιν ἢ ἀσώματα. καὶ εἰ μὲν σώματά ἐστι, ψεῦδος ἔσται τοῖς γεωμέτραις τὸ ἀβαθῆ εἶναι τὴν ἐπιφάνειαν. εἰ γὰρ σῶμά ἐστιν, ἐξ ἀνάγκης ἔξει καὶ βάθος· πᾶν γὰρ σῶμα ὀφείλει βάθος ἔχειν. εἶτα οὐδὲ ἄψεται τινος, ἀλλὰ πᾶν ἔσται ἀπειρομέγεθες. εἰ γὰρ σῶμά ἐστιν, ἐπεὶ πᾶν σῶμα πέρασ ἔχει, κάκεῖνο τὸ πέρασ σῶμα ὃν ἔξει πέρασ, κάκεῖνο ὁμοίως, καὶ τοῦτ' εἰς 82 ἄπειρον. εἰ δὲ ἀσώματόν ἐστι τὸ πέρασ, ἐπεὶ τὸ ἀσώματον οὐδενὸς δύναται θιγεῖν οὐδὲ θιχθῆναι, τὰ πέρατα οὐχ ἄψεται ἀλλήλων, τούτων δὲ μὴ ἀπτομένων οὐδὲ τὰ πεπερατωμένα ἄψεται ἀλλήλων. κἂν δῶμεν οὖν εἶναι μῆκος ἀπλατὲς τὴν γραμμὴν, ὃ περὶ τῆς ἐπιφανείας λόγος ἄπορος ἔστί. οἷς, κἂν ἡμεῖς μὴ λέγωμεν, ἀπόροις οὖσι συναπορεῖται καὶ τὸ στερεὸν σῶμα, ἐκ τούτων σύνθετον καθεστῶς.

83 Σκοπῶμεν δὲ καὶ οὕτως. εἰ γὰρ σῶμά ἐστιν, ὡς φασὶν οἱ γεωμέτραι, τὸ τὰς τρεῖς ἔχον διαστάσεις, μῆκος πλάτος βάθος, ἥτοι χωριστόν ἐστι τούτων τὸ σῶμα, ὥστε ἄλλο μὲν εἶναι τὸ σῶμα ἄλλο δὲ τὸ μῆκος τοῦ σώματος πλάτος τε καὶ βάθος, ἢ ὃ ἀθροισμὸς τούτων ἐστὶ τὸ σῶμα. ἀλλὰ χωρίζεσθαι μὲν τούτων τὸ σῶμα οὐ πιθανόν ἐστιν· ὅπου γὰρ μήτε μῆκος ἔστι μήτε πλάτος μήτε 84 βάθος, ἐκεῖ οὐχ οἷόν τε νοῆσαι σῶμα· εἰ δὲ ὃ

the things limited will not touch each other, and where the things limited touch, the bodies will be outside their own limits, since the surface is the limit and the body the thing limited.—Also, the limits are 81 either bodies or incorporeal. But if they are bodies, the Geometers will find that it is false that the surface is without depth. For if it is corporeal, it will of necessity have depth; for every body must have depth. Then, too, it will not touch anything but will all be infinite in magnitude. For if it is body, since every body has a limit, that limit too, being a body, will have a limit, and likewise this last one, and so on *ad infinitum*. And if the limit is incorporeal, since 82 the incorporeal cannot touch or be touched by anything,^a the limits will not touch each other, and as they do not touch neither will the things limited touch each other. So, even if we grant that the line is “length without breadth,” the account given of the plane surface is dubious. And these things being dubious, along with them doubt is cast—even if we do not affirm it—on the solid body, seeing it is composed of these.

Let us also consider the matter in this way:—If 83 body is, as the Geometers assert, that which has the three dimensions, length, breadth and depth, either the body is separable from these, so that the body is one thing and the length, breadth and depth of the body something different, or else the aggregation of these is the body. But that the body should be separated from these is not credible; for where neither length nor breadth nor depth exists, there it is impossible to conceive body; and if the aggrega- 84

^a Cf. *Adv. Phys.* i. 255; “tangere enim et tangi nisi corpus nulla potest res,” *Lucret.* i. 304.

ἀθροισμὸς τούτων νοεῖται σῶμα καὶ ἄλλο παρὰ
 ταῦτα οὐδὲν ὑπάρχει, ἐξ ἀνάγκης, ἐπεὶ ἕκαστον
 τούτων ἀσώματόν ἐστι, καὶ ἡ κοινὴ τῶν ἀσωμά-
 των σύνοδος γενήσεται ἀσώματος. ὡς περ γὰρ
 ἡ σύνθεσις τῶν στιγμῶν καὶ ἡ σύνοδος τῶν γραμμῶν
 ἀσωμάτων φύσει καθεστηκυῶν οὐ ποιεῖ
 στερεὸν καὶ ἀντίτυπον σῶμα, οὕτω καὶ ἡ τοῦ
 πλάτους καὶ ἡ τοῦ μήκους ἐτι δὲ καὶ ἡ τοῦ βάθους
 συνέλευσις ἀσώματος οὔσα οὐκ ἂν ποιῆσαι στερεὸν
 καὶ ἀντίτυπον σῶμα. εἰ δὲ μήτε χωρὶς τούτων
 ἐστὶ τὸ σῶμα μήτε ταῦτ' ἐστίν, ἀνεπινόητον,
 ὅσον ἐπὶ τοῖς γεωμέτραις, γίνεται τὸ σῶμα.
 85 πρὸς τούτοις, εἴπερ μήκους καὶ πλάτους καὶ
 βάθους σύνοδος ποιεῖ σῶμα, ἥτοι πρὶν τῆς συνόδου
 ἕκαστον τούτων νοεῖται περιέχον ἐν ἑαυτῷ τὴν
 σωματότητα καὶ τοὺς ὡς περ σωματικούς λόγους,
 ἢ μετὰ τὴν τούτων συνέλευσιν ἐπισυνέστη τὸ σῶμα.
 καὶ εἰ μὲν ἕκαστον τούτων πρὶν τῆς συνόδου
 νοεῖται περιεκτικὸν τῆς σωματότητος, ἔσται τού-
 των ἕκαστον σῶμα καὶ οὐ μετὰ τὴν σύνοδον
 86 αὐτῶν ἐκεῖνο γενήσεται. εἴτ' ἐπεὶ τὸ σῶμα οὐ
 μήκος μόνον ἐστίν, οὐδὲ πλάτος κατ' ἴδιαν, οὐδὲ
 βάθος κατὰ περιγραφὴν, ἀλλ' ὁμοσε τὰ τρία, καὶ
 μήκος καὶ πλάτος καὶ βάθος, τούτων τε ἕκαστον
 περιεῖχε τὴν σωματότητα, ἕκαστον αὐτῶν ἔξει
 τὰ τρία, καὶ τὸ μήκος οὐ μόνον ἔσται μήκος ἀλλὰ
 καὶ πλάτος καὶ βάθος, καὶ τὸ πλάτος οὐ μόνον
 ἔσται πλάτος ἀλλὰ καὶ μήκος καὶ βάθος, καὶ τὸ
 βάθος ὁμοίως ἔσται καὶ μήκος καὶ πλάτος. ὅπερ
 87 τελῶς ἐστὶν ἀλογώτατον. εἰ δὲ συνελθόντων
 τούτων τότε νοεῖται ἡ σύστασις τοῦ σώματος,
 ἥτοι συνελθόντων αὐτῶν μένει ἡ ἀρχῆθεν φύσις

tion of these is conceived as body, and there is
 nothing else besides these, then, since each of these
 is incorporeal, the united assemblage of these in-
 corporeals will necessarily be incorporeal. For just
 as the combination of the points and the conjunc-
 tion of the lines, which are by nature incorporeal,
 do not make a solid and resistant body, so too the
 union of breadth and length, and depth as well,
 being incorporeal, will not make a solid and resistant
 body. But if the body is neither separate from these
 nor identical with these, the body is—so far as the
 Geometers' account goes—inconceivable.—Further- 85
 more, if the conjunction of length and breadth and
 depth makes body, either each of these is conceived
 as containing in itself corporeality and what we may
 call "the corporeal reasons" before the conjunction,
 or else body is constructed after these have come
 together. But if each of these is conceived as con-
 taining corporeality before the conjunction, each of
 these will be body, and body will not come into being
 after the conjunction.—Moreover, since body is not 86
 length alone, nor breadth by itself, nor exclusively
 depth, but the three together, length and breadth and
 depth, and each of these includes corporeality, each
 of them will possess the three, and the length will be
 not length only but also breadth and depth, and the
 breadth will be not breadth only but also length and
 depth, and similarly the depth will also be length and
 breadth. But this is most completely illogical.—
 And if the composition of body is conceived as taking 87
 place after these have come together, then either the
 original nature of those things which have come

τοῦ μὲν μήκους ὡς μήκους, τοῦ δὲ πλάτους ὡς πλάτους, τοῦ δὲ βάθους ὡς βάθους, ἢ μεταβέ-
 88 βληκεν εἰς τὴν σωματότητα. καὶ εἰ μὲν μένει ἢ ἀρχῆθεν αὐτῶν φύσις, ἐπεὶ ἀσώματα ἔστιν, οὐδὲ διάφορον ποιήσει σῶμα, ἀλλὰ καὶ μετὰ τὴν σύν-
 89 οδον ἀσώματα μενεῖ, τὴν φύσιν ὄντα ἀσώματα. εἰ δὲ συνελθόντα μεταβάλλει εἰς τὴν σωματότητα, ἐπεὶ τὸ ἐπιδεχόμενον μεταβολὴν εὐθέως ἔστι σῶμα, ἕκαστον τούτων καὶ πρὶν τῆς εἰς ταῦτο συνόδου ἔσται σῶμα, οὕτω τε καὶ τὸ ἀσώματον γενήσεται σῶμα. ὥσπερ τε τὸ σῶμα μεταβαλὼν ἄλλην μὲν ἀντ' ἄλλης ἔχει ποιότητα, μένει δὲ οὐδὲν ἥσσον σῶμα, ὅλον τὸ λευκόν, ἵνα μέλαν γένηται, καὶ τὸ γλυκύ, ἵνα πικρὸν, καὶ ὁ οἶνος, ἵνα ὄξος, καὶ ὁ μάλυβδος, ἵνα ψιμμύθιον, καὶ ὁ χαλκός, ἵνα ἰός, ἄλλην μὲν ἀντ' ἄλλης ἀναδέχεται ποιότητα, οὐκ
 90 ἐκβαίνει δὲ τοῦ σώματα εἶναι, ἀλλὰ καὶ τὸ μέλαν, ὅτε ἐκ λευκοῦ γέγονε μέλαν, καὶ τὸ πικρὸν, ὅτε ἐκ τοῦ γλυκέος γέγονε πικρὸν, καὶ τὸ ὄξος, ὅτε ἐκ τοῦ οἴνου γέγονεν ὄξος, μένει σώματα, οὕτω καὶ ταῦτα, εἴπερ μεταβάλλει [εἰς σώματα],¹ ἀλλὰ μὲν ἀντ' ἄλλων ἔσται ἀσώματα, ἀσώματα² δὲ οὐδὲν ἤττον· οὐ γὰρ ἐκβήσεται τὴν ἰδίαν φύσιν. εἰ οὖν οὔτε πρὶν τῆς συνελύσεως τούτων ἔστι νοῆσαι τὸ σῶμα οὔτε μετὰ τὴν συνέλευσιν αὐτῶν, παρὰ δὲ ταῦτα οὐκ ἔστιν ἄλλως ἐπινοῆσαι, οὐδὲν
 91 ἔστι σῶμα. πρὸς δὲ τούτοις, εἰ μηδὲν ἔστι μήκος μηδὲ πλάτος μηδὲ βάθος, οὐδὲ τὸ κατὰ μετουσίαν τούτων νοούμενον ἔσται σῶμα· οὐχὶ δὲ γε μήκος ἔστιν οὐδὲ πλάτος οὐδὲ βάθος, ὡς διὰ τῶν ἐμ-

¹ εἰς σώματα seclusi.

² ἀσώματα, ἀσώματα Heintz : σώματα, σώματα MSS., Bekk.

together remains,—that of length as length, of breadth as breadth, of depth as depth,—or it is changed to corporeality.^a But if their original 88 nature remains, since they are incorporeal they will not form a different body, but even after their conjunction they will remain incorporeal, being incorporeal by nature. And if after coming together they 89 change to corporeality, then, since that which admits of change is *ipso facto* corporeal, each of these will be body even before their coming together, and thus too the incorporeal will be body.—Also, just as the body when it has changed exchanges one property for another, but none the less remains body,—for example, white to become black, and sweet to become bitter, and wine to become vinegar, and lead to become white lead, and bronze to become rust, exchange one property for another yet do not cease to be bodies, but the black, when from being white it 90 has become black, and the bitter, when from being sweet it has become bitter, and the vinegar, when from being wine it has become vinegar, all remain bodies,—so these dimensions also, if they change, will change from one sort of incorporeal to another, but none the less (will remain) incorporeal; for they will not go out of their own proper nature.—If, then, it is not possible to conceive the body either before the coming together of these dimensions or after their coming together, and besides these no other alternative can be conceived, body is nothing.—And 91 further, if neither length is anything, nor breadth, nor depth, that which is conceived as participating in these will not be body; but length is not anything, nor is breadth, nor depth, as we have already pointed

^a Cf. *Adv. Phys.* i. 371 ff.

προσθεν παρεμυθησάμεθα· οὐδὲ τὸ κατὰ μετουσίαν
ἀρα τούτων νοούμενον ἔσται σώμα.

92 Τὰς μὲν οὖν γεωμετρικὰς ἀρχὰς οὕτω συμβέβη-
κεν ἀνυποστάτους εἶναι· τούτων δὲ ἀναιρουμένων
οὐδὲ ἄλλο τι γεωμετρικὸν θεώρημα συστήναι
δύναται. ὁποῖον γὰρ ἂν ᾖ τοῦτο, γραμμικῶς
ὀφείλει ἀποδείκνυσθαι, ἐδείξαμεν δὲ ἡμεῖς ὅτι
οὐδὲν ἔστιν ἢ γενικὴ γραμμὴ, ᾧ ἀκολουθεῖ μηδὲ
τῶν ἐπ' εἴδους τινὰ ὑπάρχειν, εἴαν τε εὐθείαν τις
ταύτην ὑποτίθεται εἴαν τε κεκλασμένην εἴαν τε
93 ἄλλως πως ἔχουσιν. ὅθεν ἤρκει μὲν ἴσως ἐν
τούτοις περατοῦν τὴν πρὸς τοὺς γεωμέτρους
ἀντίρρησην· ὅμως δὲ ἐπαγωνιζόμενοι πειρασόμεθα
διδάσκειν ὅτι κὰν τῶν ἀρχῶν ἀποστῶμεν τῶν
τῆς γεωμετρίας, οὐ δύναται θεώρημα συστήσασθαι
94 οἱ γεωμέτραι οὐδ' ἀποδείξαι. καίτοι πρὶν τούτων
καὶ πρὸς τὰς ὑποβεβηκυίας αὐτῶν ἀρχὰς οὐκ
ὀλίγα δυνατόν ἐστι λέγειν, οἷον ὅταν φῶσιν εὐθείαν
εἶναι γραμμὴν τὴν ἐξ ἴσου τοῖς ἐαυτῆς μέρεσι
κειμένην. ἵνα γὰρ τὰ ἄλλα παρῶμεν, ἐκείνο μὲν
συμφανές ἐστιν ὅτι τῆς γενικῆς γραμμῆς μὴ οὔσης
οὐδὲ εὐθεία γραμμὴ γένοιτ' ἂν· ὡς γὰρ ζῶου μὴ
ὄντος οὐδὲ ἀνθρώπου ἔστι καὶ ἀνθρώπου μὴ ὄντος
οὐδὲ Σωκράτους ἔστιν, οὕτω τῆς γενικῆς ἀναιρου-
μένης γραμμῆς συνανήρηται καὶ ἡ ἐπίπεδος εὐθεία
95 γραμμὴ. εἶτα καὶ τὸ ἴσον λέγεται διχῶς, κατὰ
ἓνα μὲν τρόπον τὸ ἰσομέγεθες καὶ μήτε ὑπερέχον
ἐκείνου τοῦ ᾧ λέγεται ἴσον μήτε ὑπερεχόμενον,
καθὸ καὶ τὸ πηχυαῖον ξύλον ἴσον εἶναι λέγομεν
τῷ πηχυαίῳ, καθ' ἕτερον δὲ τὸ ἔχον ἐξ ἴσου τὰ
μέρη κείμενα, τουτέστι τὸ ὁμαλόν· οὕτω γοῦν τὸ

out^a; therefore that which is conceived as partici-
pating in these will not be body.

Thus, as regards the principles of geometry, the 92
result is that they are unfounded; and as these are
abolished no other geometrical theorem can subsist.
For the theorem, of whatever sort it be, must be
proved by a diagram, but we have shown^b that the
generic line is nothing, and from this it follows that
none of the specific lines exist, whether one assumes
a straight one, or a curved one, or one of some other
form. Hence, it might, no doubt, have sufficed to 93
finish at this point our confutation of the Geometers;
however, we shall contend against them further and
try to show that, even if we disregard the principles
of geometry, the Geometers are unable to construct
or prove a theorem. Before this, however, no little 94
can be said against their underlying principles,—as,
for instance, when they declare that “a straight line
is that which is equally placed with its parts.” For,
to pass over all other objections, this one is obvious,—
that the generic line being non-existent, the straight
line will not exist; for just as “man” does not exist
if “animal” is non-existent, and “Socrates” does
not exist if “man” is non-existent, so if the generic
line is destroyed the plane straight line is destroyed
along with it.—Moreover, the term “equal” is used 95
in two senses, in one sense as “equal in magnitude”
and neither exceeding nor being exceeded by that
to which it is said to be equal (as we say that the
staff of a cubit's length is equal to a cubit's length),
in another sense of “that which has its parts placed
equally,” that is to say, “the even”; thus, for

^a Cf. § 86.

^b Cf. §§ 37 ff.

96 ἴσον ἕδαφος καλοῦμεν ἀντὶ τοῦ ὀμαλόν. διχῶς
 οὖν τοῦ ἴσου προσαγορευομένου, ὅταν οἱ γεω-
 μέτραι τὴν εὐθείαν γραμμὴν ὑπογράφοντες φῶσιν
 “εὐθειά ἐστι γραμμὴ ἢ ἐξ ἴσου τοῖς ἑαυτῆς
 μέρεσι κειμένη,” ἥτοι τὸ κατὰ τὸ πρῶτον σημαίνο-
 μενον λαμβάνουσιν ἴσον ἢ τὸ κατὰ τὸ δεύτερον.
 ἀλλ’ εἰ μὲν τὸ κατὰ τὸ πρῶτον, τελέως εἰσὶν
 ἀνόητοι· οὐδένα γὰρ ἔχει νοῦν τὸ εὐθείαν εἶναι
 γραμμὴν τὴν ἰσομεγέθη τοῖς ἑαυτῆς μέρεσι καὶ
 μήτε ὑπερέχουσαν ταῦτα μήτε ὑπερεχομένην ὑπὸ
 97 τούτων. εἰ δὲ τὸ κατὰ τὸ δεύτερον, δι’ αὐτοῦ τὸ
 ζητούμενον¹ διδάξουσιν, εἶγε ὅτι μὲν ἔστιν εὐθεῖα
 παριστᾶσιν ἐκ τοῦ ὀμαλῶς τε καὶ ἐπ’ εὐθείας ἔχειν
 κείμενα τὰ μέρη, τὸ δὲ ἐπ’ εὐθείας τι κείσθαι οὐκ
 98 ἔστι μαθεῖν μὴ ἐπιβαλόντας τῇ εὐθείᾳ. πολλῶ δὲ
 ἀποπῶνται τυγχάνουσι κάκεινως ὀριζόμενοι “εὐ-
 θεῖά ἐστιν ἥτις ἐξ ἴσου τοῖς ἑαυτῆς πέρασι στρέ-
 φεται” ἢ οὕτως “ἥτις περὶ τὰ ἑαυτῆς πέρατα
 στρεφομένη πᾶσι τοῖς ἑαυτῆς μέρεσιν ἄπτεται
 τοῦ ἐπιπέδου.” πρῶτον μὲν γὰρ καὶ αὐταὶ αἰ
 ἀποδόσεις ὑποπίπτουσι ταῖς πρότερον εἰρημνείαις
 ἡμῶν ἀπορίαις· εἶτα, καθὼς καὶ οἱ Ἐπικουρεῖοι
 φασιν, ἢ τοῦ κενοῦ εὐθεῖα εὐθεῖα μὲν ἐστίν, οὐ
 στρέφεται δὲ διὰ τὸ καὶ αὐτὸ τὸ κενὸν μήτε ὅλον
 99 μήτε κατὰ μέρος κίνησιν ἐπιδέχσθαι. ἢ μὲν γὰρ
 ἐπὶ τέλει ἀπόδοσις καὶ εἰς τὸν δι’ ἀλλήλων ἐπιπίπτει
 τρόπον, ὅς ἐστι μοχθηρότατος. τό τε γὰρ ἐπί-
 πεδον διὰ τῆς εὐθείας διδάσκουσι τὴν τ’ εὐθείαν
 διὰ τοῦ ἐπιπέδου· εὐθείαν μὲν γὰρ εἶναι φασιν
 ἥτις εἰς πάντα τὰ μέρη τοῦ ἐπιπέδου ἄπτεται,

¹ δι’ αὐτοῦ τὸ ζητούμενον Heintz : δι’ αὐτοῦ τοῦ ζητουμένου
 mss., Bekk.

instance, we call a pavement “equal” instead of
 “even” (or “level”). The term “equal,” then, 96
 being applied in two ways, when the Geometers in
 describing the straight line say that “a straight line
 is that which lies equally with its parts,” they are
 taking the term “equal” either in the first significa-
 tion or in the second. But if it is in the first, they are
 perfectly senseless; for there is no sense in saying
 that the straight line is of equal magnitude with its
 parts, neither exceeding these nor being exceeded by
 these. And if it is in the second sense, they will be 97
 proving the matter in question by means of itself,
 seeing that they establish the fact that it is straight
 from the fact that it has its parts lying evenly and in
 a straight line, whereas it is not possible to learn that
 a thing lies in a straight line without having sensed
 the straight line. But they are far more absurd when 98
 they give the following definition,—“A straight line
 is that which revolves equally with its limits,” or
 this—“which in revolving round its limits touches the
 plane with all its parts.” For, firstly, these descrip-
 tions are subject to the doubts already expressed
 by us; and secondly, as the Epicureans affirm, the
 straight line of the void is, indeed, straight, but does
 not revolve because the void itself does not admit of
 motion either as a whole or in part. And the last de- 99
 scription falls also into the vice of circular reasoning,^a
 which is most unsound. For they both explain the
 plane by means of the straight line and the straight
 line by means of the plane; for they say that the
 straight line is that which touches the plane with all its

^a Cf. P.H. i. 117.

ἐπίπεδον δὲ τυγχάνειν δι' οὐ ἢ καταγομένη εὐθεία πᾶσι τοῖς μέρεσιν ἄπτεται, ὥσθ' ἵνα μὲν τὴν εὐθείαν μάθωμεν, πρῶτον τὸ ἐπίπεδον μαθεῖν δεῖ, ἵνα δὲ τοῦτο, ἀναγκαῖον προεγνωκέναι τὴν εὐθείαν. ὅπερ ἄτοπον. καθόλου τε ὁ διὰ τοῦ ἐπιπέδου τὴν εὐθείαν διδάσκων οὐδὲν ἄλλο ποιεῖ ἢ δι' εὐθείας τὴν εὐθείαν παρίστησιν, ἐπεὶ περ τὸ ἐπίπεδον πολλαί εἰσιν εὐθεῖαι κατ' αὐτούς.

- 100 Οἷος δὲ ἐστὶν ὁ περὶ τῆς εὐθείας λόγος, τοιοῦτος γένοιτ' ἂν καὶ ὁ περὶ τῆς γωνίας. πάλιν γὰρ ὅταν ὑπογράφοντες λέγωσιν ὅτι γωνία ἐστὶ δυοῖν εὐθειῶν μὴ κατάλληλα κειμένων τὸ ὑπὸ τὴν κλίσιν ἐλάχιστον, ἤτοι ἐλάχιστον λέγουσι τὸ ἄμερὲς σῶμα ἢ τὸ κατ' αὐτούς σημεῖον καὶ στιγμαίν. ἀλλὰ τὸ μὲν ἄμερὲς σῶμα οὐκ ἂν εἴποιεν, ἐπεὶ περ τοῦτο μὲν οὐδ' εἰς δύο μέρη δύναται διαιρεῖσθαι, ἢ δὲ γωνία κατ' αὐτούς ἐπ' ἄπειρον τέμνεται. καὶ ἄλλως, τῆς γωνίας ἢ μὲν μείζονά φασι εἶναι ἢν δὲ μικροτέραν· τοῦ δὲ ἐλαχίστου σώματος οὐδὲν ἐστὶ βραχύτερον, ἐπεὶ ἐκεῖνο ἀλλ' οὐ τοῦτο γενή-
- 101 σεται ἐλάχιστον.λείπεται ἄρα τὸ κατ' αὐτούς σημεῖον εἶναι λέγειν· ὁ καὶ αὐτὸ τῶν ἀπόρων. εἰ γὰρ πάντη πανταχῶς ἀδιάστατόν ἐστὶ τὸ σημεῖον, οὐ διαιρεθήσεται ἢ γωνία. καὶ μὴν οὐδὲ μείζων τις ἔσται ἢ ἐλάσσων γωνία· ἐν γὰρ τοῖς μηδεμίαν ἔχουσι διάστασιν οὐκ ἂν εἴη τις κατὰ μέγεθος
- 102 διαφορά. ἄλλως τε, εἰ μεταξὺ τῶν εὐθειῶν πίπτει τὸ σημεῖον, διορίζει τὰς εὐθείας, διορίζον δὲ οὐκ
- 103 ἔσται ἀδιάστατον. νῆ Δία, ἀλλ' εἰώθασί τινες ἐξ

parts, and the plane is that which, when the straight line is drawn over it, it touches it with all its parts, so that in order to get to know the straight line we must first get to know the plane, and in order to do this, we must necessarily know beforehand the straight line ; which is absurd. And, in sum, he who explains the straight line by means of the plane is doing nothing else than establishing the straight line by means of the straight line, since, according to them, the plane is many straight lines.

The argument about the angle will be of much the 100 same kind as that about the straight line. For again, when in describing the angle they say that the angle is "the minimum under the inclination of two lines which do not lie parallel," they mean by "minimum" either the indivisible body or what they call the sign or point. But they will not mean the 101 indivisible body, since this cannot be divided into two parts, whereas, according to them, the angle is divided to infinity. And besides, in the case of the angle, one, they say, is greater, another lesser ; but nothing is smaller than the minimal body, for if so it, and not the body, would be the minimum. It remains 102 then to say that it is what they call the sign ; but this itself is also dubious. For if the sign is in every way wholly without dimensions, the angle will not be divided.—Moreover, no angle will be greater or lesser ; for in things which have no dimension there will be no difference in respect of magnitude. Be- 103 sides, if the sign falls between the straight lines, it divides the straight lines, and as dividing it will not be without dimensions.—But, in sooth, some of them 104

αὐτῶν γωνίαν λέγειν τὸ ὑπὸ τὴν κλίσειν πρῶτον διάστημα. πρὸς οὓς

ἄπλους ὁ μῦθος τῆς ἀληθείας ἔφν.

ἦτοι γὰρ ἀμερές ἐστὶ τὸ διάστημα τοῦτο ἢ μεριστόν. ἀλλ' εἰ μὲν ἀμερές, αἱ προειρημέναί τῶν ἀποριῶν ἀκολουθήσουσιν αὐτοῖς, εἰ δὲ μεριστόν, οὐδὲν ἔσται πρῶτον· τοῦ γὰρ ὑποσταθέντος πρῶτου ἕτερον εὐρεθήσεται πρότερον διὰ τὴν ἀρεσκο-
 105 μένην αὐτοῖς εἰς ἄπειρον τῶν ὄντων τομῆν. ἐὼ λέγειν ὅτι καὶ ἄλλη τινὶ τεχνολογία μάχεται ἢ τοιαύτη τῶν γωνιῶν νόησις. διαιρούμενοι γὰρ φασι τῆς γωνίας τὴν μὲν τινα εἶναι ὀρθὴν τὴν δὲ ἀμβλείαν τὴν δὲ ὀξείαν, καὶ τῆς μὲν ἀμβλείας ἄλλην καὶ ἄλλην μᾶλλον ἀμβλυτέραν εἶναι, ὡσαύτως δὲ
 106 καὶ τῆς ὀξείας. εἰ δὲ γωνίαν φαμέν τὸ ἐλάχιστον ὑπὸ τὴν κλίσειν διάστημα, οὐ σωθήσονται αἰ τοιαῦται τῶν γωνιῶν διαφοραί, παρόσον ὑπερέχουσι τε ἀλλήλας καὶ ὑπερέχονται ὑπ' ἀλλήλων. ἢ εἴπερ σώζονται, ἀναιρεῖται ἡ γωνία, μὴ ἔχουσα ἐσθηκὸς μέτρον ᾧ διαγνωσθήσεται.

Περὶ μὲν οὖν εὐθείας γραμμῆς καὶ γωνίας
 107 τοιαῦτα ῥητέον πρὸς αὐτούς· ὀριζόμενοι δὲ καὶ τὸν κύκλον φασι “κύκλος ἐστὶ σχῆμα ἐπίπεδον ὑπὸ μιᾶς γραμμῆς περιεχόμενον, πρὸς ἣν αἱ ἀπὸ τοῦ κέντρου προσπίπτουσαι εὐθεῖαι ἴσαι εἰσὶν ἀλλήλαις,” ματαιάζοντες· τοῦ γὰρ σημείου καὶ τῆς γραμμῆς καὶ τῆς εὐθείας καὶ ἔτι τοῦ ἐπιπέδου καὶ τῆς γωνίας ἀνηρημένων οὐδὲ κύκλος ἐπινοηθῆναι δύναται.

108 Ἄλλ' ἵνα μὴ δοκῶμεν σοφιστικοὶ τινες εἶναι καὶ τὴν σύμπασαν τῆς ἀντιρρήσεως κατασκευῆν

are wont to say that the angle is “the first interval under the inclination.” Against whom

By nature simple is the tale which truth doth tell.*

For this interval is either without parts or with parts. But if it is without parts, they will find themselves beset in consequence with the difficulties already stated; and if it has parts, none of them will be “first”; for another will be found to be prior to that assumed to be “first” because of the division of existents *ad infinitum* which is approved by them. I forbear to argue
 105 that such a notion of the angles is in conflict with another piece of their technology. For in their classification they say that one class of angle is “right,” another “obtuse,” another “acute”; and that, of the obtuse angles, some are more obtuse than others, and so likewise with the acute angles. But if we affirm that
 106 the angle is “the least interval under the inclination,” such differences in angles will not be preserved, in so far as they both exceed one another and are exceeded by one another. Or, if they are preserved, the angle is destroyed, not possessing a fixed standard by which it can be distinguished.

Such, then, are the arguments we must use against them with respect to the straight line and the angle; and in defining the circle they say “The circle is a 107 plane figure enclosed by one line, and the straight lines from the centre which fall on this are equal to one another,” talking idly; for when the sign and the line and the straight line, and the plane, too, and the angle are destroyed, the circle cannot be conceived.

But in order that we may not seem to be sophistical
 108 people and to expend all the reasoning in our refuta-

* Cf. Eurip. *Phoeniss.* 469.

ἐν μόαις καταναλίσκευ ταῖς τῆς γεωμετρίας
 ἀρχαῖς, φέρε μετελθόντες, ὡς πρότερον ὑπεσχό-
 μεθα, καὶ τὰ μετὰ τὰς ἀρχὰς αὐτῶν θεωρήματα
 109 ἐπισκεψώμεθα. ὅταν οὖν λέγουσι τὴν δοθεῖσαν
 εὐθείαν δίχα τεμεῖν, ἥτοι τὴν ἐπὶ τοῦ ἄβακος διδο-
 μένην λέγουσι διχοτομεῖν ἢ τὴν ἀπὸ ταύτης κατὰ
 μετάβασιν νοουμένην. οὐτε δὲ τὴν ἐπὶ τοῦ ἄβακος
 δοθεῖσαν διχοτομεῖν ἐροῦσιν· αὐτῇ μὲν γὰρ μήκος
 καὶ πλάτος αἰσθητὸν ἔχειν φαίνεται, ἢ δὲ κατ'
 αὐτοὺς εὐθεία γραμμὴ μήκός ἐστιν ἀπλατές, ὥστε
 μὴ (γραμμῇ)¹ οὐσα κατ' αὐτοὺς ἢ γραμμῇ ἢ ἐπὶ
 τοῦ ἄβακος οὐδὲ δίχα τμηθήσεται ὡς γραμμῇ.
 110 καὶ μὴν οὐδὲ ἢ ἀπὸ ταύτης κατὰ μετάβασιν νοου-
 μένην. ὑποκείσθω γὰρ λόγου χάριν ἐξ ἑνῆα
 στιγμῶν συνεστῶσα, ἀφ' ἑκατέρου μὲν τῶν ἄκρων
 τεσσάρων καὶ τεσσάρων ἀριθμουμένων, μίᾳ δὲ
 τὰς δύο τετράδας μεσολαβούσης στιγμῆς. οὐκοῦν
 εἰ δίχα τέμνεται ἢ ὅλη γραμμῇ, ἥτοι μεταξὺ
 ταύτης τῆς πέμπτης στιγμῆς καὶ τῆς ἑτέρας
 τετράδος ἐνεχθήσεται τὸ τέμνον, ἢ κατ' αὐτῆς τῆς
 111 πέμπτης, ὥστε καὶ αὐτὴν διχάζειν. τὸ μὲν οὖν
 μεταξὺ τῆς πέμπτης στιγμῆς καὶ τῆς ἑτέρας
 τετράδος φέρεσθαι τὸ τέμνον τῶν ἀλόγων· γενή-
 σεται γὰρ ἄνισα τὰ τμήματα, καὶ τὸ μὲν ἐκ
 τεσσάρων στιγμῶν συγκείμενον τὸ δὲ ἐκ πέντε.
 τὸ δὲ αὐτὴν διχάζειν τὴν στιγμὴν πολλῶν τοῦ
 προτέρου ἀλογώτερον· οὐκέτι γὰρ ἀδιάστατον
 ἀπολείψουσι τὸ σημεῖον, ὃ γε διχάζεται πρὸς τοῦ
 112 τέμνοντος. ὁ δὲ αὐτὸς λόγος καὶ ἐπειδὴν φῶσι
 τὸν κύκλον εἰς ἴσα τέμνειν. εἰ γὰρ ὁ κύκλος εἰς
 ἴσα τέμνεται, πάντως ἐπεὶ μεσαίτατον ἔχει τὸ

¹ (γραμμῇ) addidi.

tion on the principles of geometry alone, come and
 let us pass on, as we previously promised,^a and investi-
 gate the theorems which come after their principles.
 When, then, they say that they will "bisect the given
 109 straight line,"^b they mean that they are bisecting
 either that given on the board or that which is con-
 ceived by transference from it. But they will not mean
 that they are bisecting that given on the board; for
 this appears to possess sensible length and breadth,
 whereas, according to them, the straight line is
 "length without breadth," so that the line on the
 board, not being a line according to them, will not be
 bisected like a line. Nor, indeed, will the line which
 110 is conceived by transference from that on the board.
 For let us assume, for the sake of argument, that it
 is composed of nine points, four being numbered
 from the one extremity and four from the other and
 one point occupying the middle place between the
 two sets of four. Then, if the whole line is bisected,
 the secant will strike either between this fifth point
 and one of the sets of four or on the fifth point itself
 so as to divide it in two. That the secant should
 111 strike between the fifth point and one of the sets of
 four is, however, illogical; for the sections will be
 unequal, one being made up of four points and the
 other of five. But the dividing the point itself into
 two is much more illogical than the former alter-
 native; for they will no longer be leaving the sign
 without dimensions,^c as it is divided into two by
 the secant.—And the argument is the same when
 112 they say they are cutting the circle into equal parts.^d
 For if the circle is cut into equal parts, then, since it

^a Cf. § 93.
^b Cf. § 20.

^c Cf. Adv. Phys. i. 282 ff.
^d Cf. Adv. Phys. i. 284 ff.

κέντρον, ὃ καὶ αὐτὸ ἐστὶ σημεῖον, ἥτοι τῷδε τῷ
 τμήματι ἢ τῷδ' [τινι] προσμερισθήσεται, ἢ καὶ
 αὐτὸ δίχα τμηθήσεται. ἀλλὰ τὸ μὲν τῷδε ἢ τῷδε
 προσμερισθῆναι ἄνισον τὴν διχοτόμησιν ποιεῖ, τὸ
 δὲ καὶ αὐτὸ διχοτομεῖσθαι μαχόμενόν ἐστι τῷ
 113 ἀδιάστατον καὶ ἀμερές ὑπάρχειν τὸ σημεῖον. τὸ
 τε τέμνον τὴν γραμμὴν ἥτοι σώμά ἐστιν ἢ ἀσώ-
 ματον. οὔτε δὲ σώμα δύναται τυγχάνειν ἀμερές
 γάρ τι καὶ ἀσώματον καὶ μὴ ὑποπίπτον αὐτῷ οὐκ
 ἂν τέμνοι· οὔτε ἀσώματον. τουτὶ γὰρ πάλιν εἰ
 μὲν στιγμῆ ἐστὶ, τῷ ἀμερέῳ εἶναι καὶ κατὰ ἀμερέους
 πίπτειν οὐκ ἂν τέμνοι, εἰ δὲ γραμμῆ, πάλιν ἐπεὶ τῷ
 πέρατι ἑαυτῆς ὀφείλει τέμνειν, τὸ δὲ πέρασ αὐτῆς
 114 ἐστὶν ἀμερές, οὐ τέμνει. ἄλλως τε τὸ τέμνον
 πέρασ ἥτοι μέσον τῶν δυοῖν στιγμῶν πίπτει δι-
 χοτομεῖ τὴν γραμμὴν, ἢ κατὰ μέσου φέρομενον
 τοῦ σημείου. ἀλλὰ τὸ μὲν κατὰ μέσου φέρεσθαι
 τοῦ σημείου τῶν ἀδυνάτων· δεήσει γάρ, ὡς
 πρότερον ἐλέγομεν, τὸ καθ' οὐ φέρεται μερι-
 στὸν εἶναι καὶ μηκέτι ἀδιάστατον τυγχάνειν.¹
 115 μεταξὺ δὲ τῶν δυοῖν στιγμῶν φέρεσθαι πολλῷ
 ἀλογώτερον. πρῶτον μὲν γὰρ οὐδὲν δύναται μετα-
 ξὺ συνεχείας μέσον πεσεῖν πέρασ· εἴτα κἂν δοθῇ
 τὸ τοιοῦτον ὡς δυνατόν, ὀφείλει μετακινεῖν τὰ ὦν
 μεταξὺ τάσσειται, εἴπερ ἐστὶ συνεχῆ· ταῦτα δ' ἐστὶν
 ἀκίνητα. τοίνυν ἄπορος καὶ ὁ περὶ τοῦ τέμνοντός
 116 ἐστὶ λόγος. οὐ μὴν ἀλλὰ κἂν δώμεν αὐτοῖς τὰς
 ἀφαιρέσεις ποιείσθαι ἐπὶ τῶν αἰσθητῶν τούτων
 γραμμῶν, οὐ δυνήσονται οὐδ' οὕτως εὐδοῆσαι. ἢ

¹ τὸ καθ' οὐ φέρεται μ. εἶναι καὶ μ. ἀδ. τυγχάνειν scripsi: τὸ
 καθόλου φέρεσθαι μ. ἐὰν ἢ μ. ἀδ. τυγχάνη mss., Bekk.: τὸ καθ' οὐ
 φέρεται μ. εἶναι, ἵνα μ. cj. Bekk.

has the centre (which itself is a point), in the very
 middle, the centre will certainly be annexed either to
 this section or to that, or else it will itself be cut in
 two. But the fact of its being annexed to this section
 or that makes the bisection unequal; and that it should
 itself be bisected is in conflict with the fact that the
 sign is without dimensions and without parts.—Also, 113
 the secant which cuts the line is either a body or incor-
 poreal. But it cannot be a body; for, if so, it will not
 cut a thing without parts and incorporeal and on which
 it cannot strike; nor yet can it be incorporeal. For
 this, again, if it is a point, will not cut owing to its
 being without parts and striking on what is without
 parts; and if it is a line, again it does not cut since it
 must cut with its limit, and its limit is without parts.—
 Besides, the limit which cuts bisects the line either by 114
 falling between the two points, or by striking on the
 middle of the sign. But that it should strike on the
 middle of the sign is a thing impossible. For, as we
 said before, that on which it strikes will have to
 possess parts and be no longer without dimensions.
 And that it should strike between the two points is 115
 much more irrational. For, firstly, no limit can fall
 in the middle of what is continuous; and secondly,
 even if we allow that such a thing is possible, it must
 move apart the things between which it posts itself,
 if they are continuous; but these are immovable.
 So then, the account given of the secant is dubious.
 —Moreover, even if we grant them that subtrac- 116
 tions are made in the case of these sensible lines,
 even so they will be unable to make progress. For

γὰρ ἀφ' ὅλης τῆς γραμμῆς ἡ ἀφαίρεσις γενήσεται ἢ ἀπὸ μέρους, καὶ τὸ ἀφαιρούμενον ἢ ἴσον ἀπὸ ἴσου ἢ ἄνισον ἀπὸ ἀνίσου [ἢ ἐναλλάξ]¹ γενήσεται· οὐδὲν δὲ τούτων ἐστὶν εὐπορον, ὡς ἐν τῷ πρὸς τοὺς γραμματικούς καὶ ἐν τῷ πρὸς τοὺς φυσικούς ὑπομνήματι παρεστήσαμεν· οὐκ ἄρα δυνατόν ἐστι τοῖς γεωμέτραις ἀφαιρεῖν τι καὶ τέμνειν ἀπὸ γραμμῆς.

¹ [ἢ ἐναλλάξ] del. Heintz.

the subtraction will either be from the whole line or from a part, and the part subtracted will be either an equal part from an equal, or an unequal from an unequal; but none of these is feasible, as we have established in our treatise *Against the Grammarians*^a and in that *Against the Physicists*; therefore it is not possible for the Geometers to subtract or cut off anything from the line.

^a Cf. *Adv. Gram.* 162 ff.; *Adv. Phys.* i. 280 ff.; *P.H.* iii. 85 ff.

Δ

ΠΡΟΣ ΑΡΙΘΜΗΤΙΚΟΥΣ

- 1 Ἐπειδὴ τοῦ ποσοῦ τὸ μὲν ἔστιν ἐν τοῖς συνεχέσι σώμασιν, ὃ δὴ μέγεθος καλεῖται, περὶ ὃ ἔστι μάλιστα ἡ γεωμετρία, τὸ δὲ ἐν διεστώσιν, ὅπερ ἀριθμὸς καθέστηκεν, περὶ ὃν ἡ ἀριθμητικὴ καταγίνεται, σκοπῶμεν ἀπὸ τῶν γεωμετρικῶν ἀρχῶν καὶ θεωρημάτων μετελθόντες καὶ τὰ περὶ ἀριθμοῦ τούτου γὰρ ἀναιρεθέντος οὐθ' ἡ περὶ αὐτὸν συνισταμένη γενήσεται τέχνη.
- 2 Καθόλου μὲν οὖν οἱ ἀπὸ τῶν μαθημάτων Πυθαγορικοὶ μεγάλην ἀπονέμουσι δύναμιν τοῖς ἀριθμοῖς ὡς τῆς τῶν ὄλων φύσεως κατ' αὐτοὺς διοικουμένης. ὅθεν καὶ αἰεὶ ποτε ἐπεφώνουν τὸ

ἀριθμῷ δέ τε πάντ' ἐπέοικεν,

ὀμνύοντες οὐ μόνον τὸν ἀριθμὸν ἀλλὰ καὶ τὸν ὑποδείξαντα αὐτοῖς τοῦτον Πυθαγόραν ὡς θεὸν διὰ τὴν ἐν ἀριθμητικῇ δύναμιν, λέγοντες

οὐ μὰ τὸν ἀμέτρητον ψυχᾶ παραδόντα τετρακτύν, πηγὴν ἀενάου φύσεως ριζώματ' ἔχουσαν.

- 3 τετρακτὺς δὲ προσηγορεύετο παρ' αὐτοῖς ὃ ἐκ τῶν πρώτων τεσσάρων ἀριθμῶν συγκεῖμενος δέκα ἀριθμοῖς.

BOOK IV

AGAINST THE ARITHMETICIANS

SINCE one kind of quantity, which is called "magnitude," and which is the chief concern of geometry, belongs to continuous bodies, and another kind, which is number, the subject of arithmetic, belongs to discontinuous, let us pass on from the principles and theorems of geometry and examine also those which deal with number; for if this is destroyed, the art which is constructed to handle it will not exist.

Now, speaking generally, the mathematical Pythagoreans^a ascribe great power to numbers, as though the nature of all things was governed in conformity with them. Hence, they constantly kept repeating—

All things, too, are like unto number.^b

And they swear not only by number but also by Pythagoras, the man who showed it to them, as though he were a god because of the power of arithmetic, saying,^c—

Nay, by the man I swear who bequeathed to our soul the Tetraktys,

Fount containing the roots of Nature ever-enduring.

And "tetraktys" was the name given by them to the number ten, it being composed of the first four

^a e.g. Philolaus and Archytas.

^b Cf. Adv. Log. i. 94, 109.

^c Cf. Adv. Log. i. 94.

θμός. ἐν γὰρ καὶ δύο καὶ τρία καὶ τέσσαρα δέκα γίνεται· ὅς ἐστι τελειότατος ἀριθμός, ἐπεὶ ἐπ' αὐτὸν φθάσαντες πάλιν ἀναλύομεν ἐπὶ τὴν μονάδα καὶ ἐξ ὑπαρχῆς ποιούμεθα τὰς ἀριθμήσεις. πηγὴν τ' ἀενάου φύσεως ριζώματ' ἔχουσαν εἰρήκασιν αὐτὸν διὰ τὸ κατ' αὐτοὺς ἐν αὐτῷ τὸν λόγον τῆς ἀπάντων κείσθαι συστάσεως, οἷον εὐθέως τοῦ τε σώματος καὶ τῆς ψυχῆς· ἀπαρκέσει γὰρ τούτων
 4 ὑποδειγματικῶς μεμνήσθαι. ἡ μὲν οὖν μονὰς ἀρχὴ τις ὑπόκειται τῆς τῶν ἄλλων ἀριθμῶν ἀπεργαστικῆ συστάσεως, ἡ δὲ δυὰς μήκους ἐστὶν ἀπεργαστικῆ. καθάπερ γὰρ ἐπὶ τῶν γεωμετρικῶν ἀρχῶν ὑπεδείξαμεν πρῶτον τίς ἐστὶν ἡ στιγμή, εἶτα μετ' αὐτὴν ἡ γραμμὴ μήκους ἀπλατὲς τυγχάνουσα, τὸν αὐτὸν τρόπον καὶ ἐπὶ τοῦ παρόντος ἡ μὲν μονὰς τὸν τῆς στιγμῆς ἐπέχει λόγον, ἡ δὲ δυὰς τὸν τῆς γραμμῆς καὶ τοῦ μήκους· ποθὲν γὰρ
 5 ποι' ἐχώρησεν ἡ διάνοια ταύτην ἐνοουμένη, τοῦτο δ' ἦν μήκος. ἡ δὲ τριάς ἐπὶ τοῦ πλάτους καὶ τῆς ἐπιφανείας ἐτέτακτο· ποθὲν γὰρ ποι' (καὶ πάλιν ποι)² ἐφέρετο ὁ νοῦς, καὶ προστιθεμένης τῇ κατὰ μήκος διαστάσει τῆς κατὰ πλάτος διαστάσεως ἐπιφάνεια νοεῖται. ἀλλὰ κὰν ἐπιθεωρήσῃ τις τῇ τριάδι τετάρτην μονάδα, τούτεστι τέταρον σημείον, γίνεται πυραμῖς, στερεὸν σῶμα καὶ σχῆμα· καὶ γὰρ μήκος ἔχει καὶ πλάτος καὶ βάθος· ὥστε ἐν τῷ τέσσαρα ἀριθμῷ τὸν τοῦ σώματος περιέχει
 6 σθαι λόγον. καὶ μὴν καὶ τὸν τῆς ψυχῆς· ὡς γὰρ τὸν ὅλον κόσμον κατὰ ἀρμονίαν λέγουσι διοικεῖσθαι, οὕτω καὶ τὸ ζῶον ψυχοῦσθαι. δοκεῖ δὲ ἡ

¹ ποι scripsi: ποῦ mss., Bekk.

² (καὶ πάλιν ποι) addidi: (κ. π. ποῦ) add. cj. Bekk.

numbers. For one and two and three and four make up ten; and this is the most perfect number, since, when we have reached it, we revert again to the one and make our numerations afresh. And they have called it the "fount containing the roots of Nature ever-enduring" because, according to them, the reason of the structure of all things resides in it, as for instance that of the body and the soul^a; for it will suffice to mention these by way of example. Now⁴ the monad (or one) is an underlying principle which produces the structure of all the other numbers, and the dyad (or two) is productive of length. For as in the case of the geometrical principles we explained^b first what the point is, and next, after it, the line which is length without breadth, similarly, in the case before us, the monad corresponds to the point and the dyad to the line and length; for thought in conceiving this moves from some place to some place, and this is length. And the triad (or three) is set⁵ over breadth and the plane; for the mind has moved from here to there (and on again to some other place), and when the distance in breadth is added to the distance in length the plane is conceived. But if, in addition to the triad one imagines a fourth monad, that is, a fourth sign, the pyramid is formed, a solid body and figure; for it possesses length and breadth and depth; so that the formula of the body is comprised in the number four. And so also is that⁹ of the soul; for they declare that as the whole Universe is governed according to harmony, so too the living creature is ensouled. And the perfect

^a Cf. *Adr. Log.* i. 99 ff.

^b Cf. *Adv. Geom.* 19 ff.

τέλειος ἄρμονία ἐν τρισὶ συμφωνίαις λαμβάνειν τὴν ὑπόστασιν, τῇ τε διὰ τεττάρων καὶ τῇ διὰ πέντε καὶ τῇ διὰ πασῶν. ἡ μὲν οὖν διὰ τεσσάρων ἐν ἐπιτίτῳ κείται λόγῳ, ἡ δὲ διὰ πέντε ἐν ἡμιολίῳ, ἡ δὲ διὰ πασῶν ἐν διπλασίῳ. ἐπίτιτος δὲ λέγεται ἀριθμὸς ὁ ἐξ ὄλου τινὸς ἀριθμοῦ συνεστηκὸς καὶ ἐκ τοῦ τρίτου μέρους ἐκείνου, ὡς ἔχει ὁ ὀκτώ πρὸς τὸν ἕξ· καὶ γὰρ αὐτὸν τὸν ἕξ περιέσχηκε καὶ τὸ τρίτον αὐτοῦ, τούτέστι τὴν δυάδα. ἡμιόλιος δὲ καλεῖται, ὅταν περιέχῃ ἀριθμὸς ἀριθμὸν καὶ τὸ ἡμισυ ἐκείνου, ὡς ἔχει ὁ ἐννέα πρὸς τὸν ἕξ· συνέστηκε γὰρ ἐκ τοῦ ἕξ καὶ ἐκ τοῦ ἡμίσεος αὐτοῦ, τούτέστι τῶν τριῶν. διπλασίῳ δὲ προσαγορεύεται ὁ δυοῖν ἀριθμοῖς ἴσος,¹ ὡς ὁ τέσσαρα πρὸς τὸν δύο· δις γὰρ τὸν αὐτὸν περιέσχηκεν. ἀλλὰ γὰρ τούτων οὕτως ἐχόντων, καὶ κατὰ τὴν ἀρχῆθεν ὑπόθεσιν τεσσάρων ὄντων ἀριθμῶν, τοῦ τε ἐνός καὶ δύο καὶ τρία καὶ τέσσαρα, ἐν οἷς ἐλέγομεν καὶ τὴν τῆς ψυχῆς ἰδέαν περιέχεσθαι κατὰ τὸν ἐναρμόνιον λόγον, ὁ μὲν τέσσαρα τοῦ δύο καὶ ὁ δύο τῆς μονάδος ἐστὶ διπλασίῳ, ἐν ᾧ ἔκειτο ἡ διὰ πασῶν συμφωνία, ὁ δὲ τρία τοῦ δύο ἡμιόλιος (καὶ γὰρ αὐτὸν τὸν δύο περιέσχηκε καὶ τὸ ἡμισυ τούτου, ὅθεν καὶ τὴν διὰ πέντε συμφωνίαν ὑπέβαλλεν), ὁ δὲ τέσσαρα τοῦ τρία ἐπίτιτος, ὑπέκειτο δὲ καὶ ἐν τούτῳ ἡ διὰ τεσσάρων συμφωνία. ὥστε εἰκότως τὸν τέσσαρα ἀριθμὸν παρὰ τοῖς Πυθαγορικοῖς εἰρησθαι πηγῆν ἀενάου φύσεως ριζώματ' ἔχουσαν.

10 Ἄλλ' ὅτι μὲν πολλὴν δύναμιν ἀπένεμον τοῖς ἀριθμοῖς, ἐκ τούτων συμφανὲς ὑποδειγματικώτερον εἰρημένον· πολλὸς γὰρ ὁ περὶ ἀριθμῶν παρ

¹ fortasse (ἴσος) ἴσος.

harmony is held to consist in three symphonies^a—that of the “By-Fours” and that of the “By-Fives” and that of the “By-Alls.” Now the “By-Fours” symphony consists of the “epitrite” (4 : 3 ratio), and that of the “By-Fives” in the ratio 3 : 2, and the “By-Alls” in the ratio 2 : 1. The number called “epitrite” is that composed of a certain number taken as a whole *plus* its third part—which is the ratio of eight to six; for the eight includes the six *plus* the third part of it, that is the dyad. And a number is said to be in the ratio 3 : 2 when the number includes a number *plus* its half,—the relation of nine to six; for the nine is composed of the six *plus* its half, that is, three. And that called “double” is that which is equal to two (equal) numbers,—the relation of four to two; for it includes the same number twice. Such, then, being the facts, and there being, according to the original assumption, four numbers—one, two, three and four—in which is included, as we said, the form of the soul according to the harmonical formula, the four is double the two and the two double the monad, and therein consists the “By-Alls” symphony; and the three is to the two in the 3 : 2 ratio (for it includes the two itself *plus* its half, and thus it supplies the “By-Fives” symphony); and the four is to the three in the “epitrite”⁹ or 4 : 3 ratio, on which is based the “By-Fours” symphony. So that naturally the number four is called by the Pythagoreans the “fount containing the roots of Nature ever-enduring.”

From what has been said by way of brief illustration¹⁰ it is clear that they ascribed much power to numbers; for the account they give of numbers is voluminous,

^a Cf. P.H. iii. 155; Adv. Log. i. 95 ff.

αὐτοῖς ἐστὶ λόγος, ὃν ἔασαντες τὰ νῦν μηκύνειν ἀπτόμεθα τῆς ἀντιρρήσεως, τὴν ἀρχὴν τῶν λόγων ἀπὸ μονάδος ποιησάμενοι, ἥτις ἀρχὴ παντός ἀριθμοῦ καθέστηκε καὶ ἥς ἀναιρουμένης οὐδ' ἔστιν ἀριθμός.

- 11 Τὴν τοῦ ἐνός τοίνυν νόησιν διατυπῶν ἡμῶν πυθαγορικώτερον ὁ Πλάτων φησὶν “ ἐν ἔστιν οὐ μὴδὲν χωρὶς λέγεται ἐν ” ἢ “ οὐ μετοχῇ ἕκαστον ἐν τε καὶ πολλὰ λέγεται. ” τὸ γὰρ φυτόν, εἰ τύχοι, καὶ τὸ ζῶον καὶ ὁ λίθος προσαγορεύεται μὲν ἐν, οὐκ ἔστι δὲ κατὰ τὸν ἴδιον λόγον ἐν, ἀλλ' ἐν¹ μετοχῇ ἐνός νοεῖται, τούτου μὴδενός τούτων καθεστῶτος.
- 12 οὔτε γὰρ φυτόν οὔτε ζῶον οὔτε λίθος οὔτε ἄλλο τι τῶν ἀριθμητῶν τὸ ὄντως ἐν ἔστιν. εἰ γὰρ φυτόν ἔστιν ἢ ζῶον τὸ ἐν, πάντως ὁ μὴ φυτόν ἔστι μὴδὲ ζῶον οὐ ῥηθήσεται ἐν. λέγεται δὲ καὶ φυτόν ἐν καὶ ζῶον καὶ ἄλλα μυρία· οὐδὲν ἄρα τῶν
- 13 ἀριθμητῶν ἐστὶ τὸ ἐν. τὸ δὲ οὐ ἕκαστον, ἐν μὲν καθ' ἑαυτὸ ἕκαστον πολλὰ δὲ ἀθροισμῶ² μετέχον, ἐν τε καὶ πολλὰ γίνεται τῶν καθ' ἕκαστον. ὅπερ πάλιν πλήθος οὐδὲν ἔστι τῶν πολλῶν, οἷον φυτῶν ζῶων λίθων· κατὰ μετοχὴν μὲν γὰρ ἐκείνου ταῦτα λέγεται πολλὰ, αὐτὸ δὲ οὐκ ἔστιν ἐν τούτοις.
- 14 πλὴν τοιαύτη μὲν ἢ τοῦ ἐνός ἰδέα νοεῖται τοῖς περὶ τὸν Πλάτωνα ἐπισυνάπτοντες δὲ ἡμεῖς λέγωμεν. ἥτοι ἑτέρα τῶν κατὰ μέρος ἀριθμητῶν³ ἐστὶν ἢ τοῦ ἐνός ἰδέα, ἢ σὺν ἐκείνοις τοῖς μετέχουσι αὐτῆς νοεῖται. ἀλλὰ καθ' αὐτὴν μὲν (οὐχ ὑφέστηκεν, εἶγε)³ παρὰ τὰ κατὰ μέρος ἀριθμητὰ οὐδὲν νοεῖται

¹ ἐν Heintz : ἐν mss., Bekk.

² ἀριθμητῶν Heintz : ἀριθμῶν mss., Bekk.

³ (οὐχ ὑφέστηκεν, εἶγε) add. cj. Bekk.

but forbearing for the present to dwell on it, let us take up the confutation, beginning our argument with the monad, which is the principle of all number and with the destruction of which number ceases to exist.

Now Plato, in formulating in rather Pythagorean¹¹ fashion the concept of the one, declares that “ One is that without which nothing is termed one,” or “ by participation in which each thing is termed one or many.” For the plant, let us say, or the animal, or the stone is called one, yet is not one according to its own proper description, but is conceived as one by participation in the One, none of them being actually the One. For neither plant nor animal nor stone nor¹² any other numerable object is the essential One. For if a plant or an animal is the One, what is not a plant or an animal will certainly not be termed one^a; but a plant is termed one, as is an animal and countless other things; therefore none of the numerables is the One. But that by participation in which each¹³ thing is by itself each one thing, and a plurality by aggregation, is the One and Many of the individual things. But this Plurality, again, is none of the many things, such as plants, animals, stones; for it is by participation in it that these things are termed “ many,” but the Plurality itself is not one of them.—Such, then, is the Idea of the One as conceived by¹⁴ Plato; so let us subjoin our argument. Either the Idea of the One is different from the particular numerables, or it is conceived along with those things which participate in it. But it does not subsist by itself, since no One other than the particular numer-

* Cf. P.H. iii. 156 ff.

ἐν ὑποκείμενον. λείπεται ἄρα ἐν ἐκείνοις τοῖς μετ-
 15 ἔχουσιν αὐτοῦ νοεῖσθαι, ὃ πάλιν τῶν ἀπύρων. τὸ
 γὰρ ἀριθμητὸν ξύλον εἰ μετοχῇ μονάδος ἔστιν ἐν,
 ὃ μὴ ἔστι ξύλον οὐ λεχθήσεται ἐν· λέγεται δέ γε,
 ὡς ἀνώτερον ὑποδέδεικται· οὐκ ἄρα ἔστιν ἡ μονὰς
 ἧς μετοχῇ ἕκαστον τῶν κατὰ μέρος ἀριθμητῶν
 16 μονὰς προσαγορεύεται. εἶτα τὸ πολλοῖς μετεχό-
 μενον πολλά ἔστι καὶ οὐχ ἐν, τὰ δὲ ἀριθμητὰ
 πολλά τέ ἐστι καὶ ἄπειρα· οὐκ ἄρα μετοχῇ τῆς
 17 μονάδος ἕκαστον τῶν ἀριθμητῶν ἐν ἔστιν. ὥσπερ
 οὖν ὁ γενικός ἀνθρώπος, ὃν τινες νοοῦσι ζῶον
 θνητόν, οὔτε Σωκράτης ἔστιν οὔτε Πλάτων, ἐπειδὴ
 οὐδεὶς λεχθήσεται ἀνθρώπος,¹ οὔτε καθ' ἑαυτὸν
 ὑφέστηκεν οὔτε μετὰ Πλάτωνος καὶ Σωκράτους,
 ἐπεὶ ἐθεωρεῖτο ἂν ὡς ἀνθρώπος, οὕτω καὶ τὸ ἐν
 μῆτε σὺν τοῖς κατὰ μέρος ἀριθμητοῖς μῆτε καθ'
 18 ἑαυτὸ ὑφεστηκὸς νοούμενον εὐθέως ἔστιν ἀνεπι-
 νόητον. τὰ δὲ αὐτὰ λεκτέον καὶ ἐπὶ τοῦ δύο ἢ
 καὶ τρία καὶ καθόλου ἐπὶ παντὸς ἀριθμοῦ, ἵνα μὴ
 μηκύνωμεν. ἔνεστι δὲ καὶ οὕτως συνερωτᾶν. ἡ
 τοῦ ἐνὸς ἰδέα, ἧς μετοχῇ τι ἐν λέγεται, ἦτοι μία
 ἔστιν ἰδέα ἢ τοῦ ἐνὸς πλείους ἰδέαι τυγχάνουσιν.
 ἀλλ' εἰ μὲν μία ἔστιν, οὐ πολλοῖς μετέχεται· τοῦ
 γὰρ A, εὐσήμου χάριν διδασκαλίας, τὴν ὅλην τοῦ
 ἐνὸς ἰδέαν ἔχοντας, τὸ B μὴ μετέχον ταύτης οὐκέτ'
 19 ἔσται ἐν. καὶ μὴν οὐδὲ πολυμερῆς καθέστηκεν,
 ἵνα πολλά ἢ τὰ μετέχοντα ταύτης· πρῶτον μὲν
 γὰρ ἔσται ἕκαστον οὐ τῆς τοῦ ἐνὸς ἰδέας μετέχον,
 μέρους δὲ αὐτῆς, εἶτα καὶ ἡ μονὰς ἀδιαίρετος καὶ

¹ (ἄλλος) add. cj. Warmington.

* Cf. the "generic Line" of *Adv. Geom.* 92.

^b For this definition cf. *P.H.* ii. 26.

ables is conceived as subsisting.—It remains, then,
 to say that it is conceived as included in those things
 which partake of it, which, again, is dubious. For 15
 if the numerable log is one by participation in the
 Monad, what is not a log will not be termed one ;
 but, as has been shown above, it is so termed ; there-
 fore the Monad, by participation in which each
 of the particular numerables is called a monad, does
 not exist.—Further, that in which many participate 16
 is Many and not One, and the numerables are both
 many and infinite ; each of the numerables, there-
 fore, is not one by participation in the Monad. So, 17
 just as the generic Man^a—whom some conceive as
 " a mortal animal "^b—is not Socrates or Plato (for, if
 so, nobody else will be termed man), and does not
 subsist of himself nor together with Plato and Socrates
 (for then he would have been observed as a man), so
 likewise the One, not being conceived either as sub-
 sisting by itself or along with the particular numer-
 ables, is *ipso facto* inconceivable. And the same must 18
 be said of the Two and the Three, and in general—
 not to make a long story of it—of every number.
 —One may also propound the following argument :
 The Idea of the One, by participation in which a
 thing is termed one, either is one Idea, or there are
 several Ideas of the One.^c But if it is one, many do
 not participate in it ; for (to explain the point clearly)
 if A possesses the whole of the Idea of the One, B,
 which does not participate in it, will no longer be one.
 —Nor yet is it multipartite, so that the things par-
 19 ticipating in it might be many ; for, firstly, each thing
 will be participating not in the Idea of the One but
 in a part of it ; and secondly, the Monad, according

^c Cf. *P.H.* iii. 158 ff.

ἀμερῆς ἐνοεῖτο κατ' αὐτούς. εἰ δὲ πλείους εἰσὶν
 ἰδέαι τοῦ ἐνός, ἕκαστον τῶν καθ' ἐν τασσομένων
 ἀριθμητῶν, ἤτοι τοῦ ἐνός ἢ τοῦ δύο, καθ' ἐν ἐκά-
 20 καὶ εἰ μὲν οὐ μετέχει, δεήσει καὶ ἅπαντα δίχα τοῦ
 μετέχειν ἰδέας κατὰ τὸ ἐν τετάχθαι, ὅπερ οὐ
 θέλουσιν. εἰ δὲ μετέχει, ἢ ἐξ ἀρχῆς συναχθήσεται
 ἀπορία· πῶς γὰρ μιᾶς τὰ δύο μεθέξει;

Ταῦτα μὲν οὖν περὶ μονάδος, ἧς ἀνηρημένης πᾶς
 21 ἀνήρηται ὁ ἀριθμὸς· ὅμως δ' οὖν ἐπισυνάπτωμεν
 καὶ τὰ περὶ τῆς δυάδος. ἀπόρως γὰρ πῶς καὶ αὕτη¹
 συνίσταται κατὰ τὴν τῶν μονάδων σύνοδον, ὡσπερ
 καὶ Πλάτων διὰ τοῦ περὶ ψυχῆς πρότερον ὑπόρη-
 κεν. παρατεθείσης γὰρ μονάδος ἑτέρα μονάδι ἤτοι
 προσγίνεται τι κατὰ τὴν παράθεσιν ἢ ἀπογίνεται ἢ
 22 οὔτε προσγίνεται τι οὔτε ἀπογίνεται. ἀλλ' εἰ μὲν
 οὔτε προσγίνεται τι οὔτε ἀπογίνεται, οὐκ ἔσται
 κατὰ παράθεσιν τῆς ἑτέρας μονάδος τῇ ἑτέρα ἢ
 δυάς. εἰ δὲ ἀπογίνεται τι κατὰ τὴν παράθεσιν,
 ἐλάττωσις ἔσται τοῦ ἐνός καὶ ἐνός, καὶ δυὰς οὐ
 γενήσεται. εἰ δὲ προσγίνεται τι, τὰ δύο οὐ γενή-
 σεται δύο ἀλλὰ τέσσαρα· δυὰς γὰρ ἢ ἐπιγνωμένη
 καὶ μονὰς καὶ ἑτέρα μονὰς τὸν τῶν τεσσάρων
 ἀριθμὸν συνίστησιν. οὐδὲν ἄρα ἔσται δυάς. ἢ
 δὲ αὕτη γένοιτ' ἂν ἀπορία καὶ ἐπὶ παντός ἀριθμοῦ,
 ὥστε μηδὲν εἶναι κατὰ τοῦτο ἀριθμὸν.

23 Οὐ μὴν ἀλλ' ἐπεὶ κατὰ πρόσθεσιν μονάδος καὶ
 κατὰ ἀφαίρεσιν ὁ ἀριθμὸς νοεῖται, δηλὸν ὡς ἐὰν
 τούτων ἑκάτερον παραστήσωμεν ἀδύνατον, οἰχί-

¹ ἀπόρως . . . αὕτη scripsi: ἀπορος . . . αὕτη MSS., Bekk.

• Cf. §§ 18, 16.

to them, is conceived as indivisible and without parts.
 And if there are several Ideas of the One, each of
 the numerables ranked as unities (whether it be a
 one or a two, both taken singly) participates in a
 certain common Idea, or it does not participate.
 But if it does not participate, all things, apart from 20
 participating in an Idea, will have to be ranked as
 unities,—a conclusion which they reject. And if
 they participate, the original difficulty^a will recur;
 for how will the twos participate in one Idea?

So much, then, concerning the monad, and if it is
 destroyed all number is destroyed; all the same, let 21
 us subjoin an attack on the dyad. For it is formed in
 a doubtful way by the conjunction of the monads,
 even as Plato formerly expressed doubts about it in
 his book *On the Soul*.^b For when a monad is set
 beside another monad, either something is added
 by the juxtaposition or something is subtracted, or
 nothing is either added or subtracted. But if nothing 22
 is either added or subtracted, the dyad will not exist
 through the juxtaposition of the one monad with the
 other. And if something is subtracted through the
 juxtaposition, there will be a diminution of the one
 and one, and a dyad will not be formed. And if
 something is added, the two will become not two
 but four; for the additional dyad *plus* the monad
 and the second monad make up the number four.
 Therefore nothing will be a dyad. And the same
 difficulty will exist in the case of every number, so
 that owing to this number is nothing.

Since, however, number is conceived as a result of 23
 the addition or subtraction of the monad, it is plain
 that if we shall establish that each of these two pro-

• Cf. *Phaedo* 96 ε ff.; *Adv. Phys.* ii. 302 ff.

σεται καὶ ἡ τῶν ἀριθμῶν ὑπόστασις. λέγωμεν δὲ
 πρῶτον εὐθύς περὶ ἀφαιρέσεως, ὑποδειγματικῆ
 24 χρώμενοι τῇ διδασκαλίᾳ. ἡ τοίνυν ἀπὸ τῆς ὑπο-
 κειμένης δεκάδος ἀφαιρουμένη μονὰς ἦτοι ἀπὸ
 ὅλης τῆς δεκάδος ἢ ἀπὸ τῆς περιλειπομένης ἐν-
 νεάδος ἀφαιρεῖται· οὔτε δὲ ἀφ' ὅλης, ὡς παρα-
 στήσομεν, οὔτε ἀπὸ τῆς ἐννεάδος, ὡς διδάξομεν·
 οὐκ ἄρα ἀφαιρεῖται τι ἀπὸ τῆς ὑποκειμένης δε-
 κάδος. εἰ γὰρ ἀφ' ὅλης ταύτης ἀφαιρεῖται ἡ
 μονάς, ἦτοι ἡ δεκάς ἐστὶν ἑτέρα τῶν κατὰ μέρος
 μονάδων ἢ ὁ ἀθροισμὸς τούτων δεκάς προσαγο-
 25 ρεῦται. ἀλλ' ἑτέρα μὲν τῶν κατὰ μέρος μονάδων
 οὐκ ἔστιν ἡ δεκάς· καὶ γὰρ ἀναιρεθεισῶν ἐκείνων
 οὐδ' ἔστι δεκάς, καὶ τῆς δεκάδος ἀναιρεθείσης
 ὁμοίως αἱ μονάδες οὐκέτι ὑπάρχουσιν. εἰ δὲ ἡ
 αὐτὴ ταῖς μονάσιν ἐστὶν ἡ δεκάς, τουτέστιν εἰ αἱ
 κατὰ μέρος μονάδες εἰσὶ δεκάς, δῆλον ὡς εἴπερ
 ἀπὸ τῆς δεκάδος ἢ τῆς μονάδος ἀφαίρεσις γίνεται,
 ἀφ' ἑκάστης μονάδος ἀφαιρεθήσεται (αἱ γὰρ κατὰ
 μέρος μονάδες ἦσαν ἡ δεκάς), καὶ οὕτως οὐκέτι
 26 ἔσται μονάδος ἄρισ ἀλλὰ δεκάδος. ὥστε οὐκ ἀπὸ
 ὅλης τῆς δεκάδος αἶρεται ἡ μονάς. καὶ μὴν οὐδ'
 ἀπὸ τῆς ὑπολειπομένης ἐννεάδος ἢ ἄρισ αὐτῆς
 γίνεται· πῶς γὰρ ἔτι μετὰ τὴν ἄρισ αὐτῆς σῶός
 ἐστὶν ἡ ὑποκειμένη ἐννεάς; ἀλλ' εἰ μήτε ἀφ' ὅλης
 τῆς δεκάδος αἶρεται ἡ μονὰς μήτε ἀπὸ τῆς ὑπο-
 λειπομένης ἐννεάδος, οὐδεὶς ἀριθμὸς κατὰ ἀφαίρεσιν
 27 συνίσταται. ἄλλως τε, εἰ ἀπὸ τῆς ἐννεάδος αἶρεται
 ἡ μονάς, ἦτοι ἀπὸ ὅλης αἶρεται ἢ ἀπὸ τῆς τελευ-
 ταίας αὐτῆς μονάδος. καὶ εἰ μὲν ἀπὸ ὅλης τῆς
 ἐννεάδος ἀφαιρεῖται ἡ μονάς, ἔσται ἄρισ τῆς ἐν-
 νεάδος· τὸ γὰρ ἀφαιρούμενον ἀφ' ἑκάστης μονάδος,

cesses is impossible, the reality of number, too, will
 be abolished. Let us, for instance, deal first with
 subtraction, using the method of demonstration by
 examples. The monad, then, which is being sub- 24
 tracted from the decad assumed is subtracted either
 from the whole decad or from the nine left over ^a ;
 but it is not subtracted from the whole, as we shall
 establish, nor from the nine, as we shall demonstrate ;
 nothing, therefore, is subtracted from the decad
 assumed. For if the monad is subtracted from this
 as a whole, either the decad is other than the par-
 ticular monads or the aggregate of these is termed a
 decad. But the decad is not other than the particular 25
 monads; for if these are destroyed the decad does
 not exist, and similarly if the decad is destroyed
 the monads no longer exist. And if the decad is the
 same as the monads,—that is to say, if the particular
 monads are the decad,—it is plain that if the sub-
 traction of the monad is from the decad, it will be
 subtracted from each monad (for the particular
 monads are the decad), and thus it will no longer be
 a subtraction of the monad but of the decad. Conse-
 quently, the monad is not subtracted from the whole
 decad. Nor, indeed, is it subtracted from the nine 26
 left over; for how will the assumed nine be still
 preserved after the subtraction? But if the monad
 is not subtracted either from the decad as a whole or
 from the nine left over, no number subsists through
 subtraction.—Besides, if the monad is subtracted 27
 from the nine, it is subtracted either from the whole
 or from its last monad. But if the monad is sub-
 tracted from the whole nine, there will be a subtrac-
 tion of the nine; for that which is subtracted from

^a Cf. P.H. iii. 88 ff.; Adv. Phys. i. 312 ff.

τῶν κατὰ μέρος μονάδων ἐννέα οὐσῶν, τὸν τῆς
 28 ἐννεάδος ἀριθμὸν συντίθησιν. εἰ δὲ ἀπὸ τῆς τελευ-
 ταίας μονάδος γίνεται τὰ τῆς ἀφαιρέσεως, πρῶτον
 μὲν καὶ ἡ τελευταία μονάς, ἀμερῆς οὐσα, δειχθή-
 σεται μεριστῆ τυγχάνειν, ὅπερ ἄτοπον· εἴτα εἰ ἀπὸ
 τῆς τελευταίας μονάδος αἴρεται ἡ μονάς, οὐ δυνή-
 29 σται ἔτι ὀλόκληρος μένειν ἡ ἐννεάς. καὶ ἄλλως,
 εἴπερ ἀπὸ τῆς δεκάδος γίνεται ἡ τῆς μονάδος
 ἀρῆσις, ἥτοι ἀπὸ οὐσης γίνεται τῆς δεκάδος [ἀρῆσις]
 ἢ ἀπὸ μὴ οὐσης· οὔτε δὲ ἀπὸ τῆς οὐσης γένοιτ'
 ἂν (ἐφ' ὅσον γὰρ μένει χρόνον δεκάς, οὐδὲν ἀπ'
 αὐτῆς ἀφαιρεθῆναι δύναται ὡς δεκάδος, ἐπεὶ οὐκ-
 30 ἐτι ἔσται δεκάς) οὔτε ἀπὸ μὴ οὐσης· ἀπὸ γὰρ
 τοῦ μὴ ὄντος οὐδὲ ἀρθῆναι τι πέφυκεν. καὶ μὴν
 παρὰ τὸ εἶναι ἢ μὴ εἶναι οὐδὲν ἔστι νοῆσαι· οὐκ
 ἄρα αἴρεται τι ἀπὸ τῆς δεκάδος.

Ἄλλ' ὅτι μὲν ἀμύχανόν ἐστι κατ' ἀφαιρέσειν
 31 ἀριθμὸν τινα νοεῖν, ἐκ τούτων δέδεικται· ὅτι δὲ
 οὐδὲ κατὰ πρόσθεσιν, ῥάδιον δεῖξαι τῶν ἀναλόγων
 ἐχομένων ἀποριῶν. πάλιν γὰρ μονάδος προστιθε-
 μένης δεκάδι ἥτοι τῇ ὅλῃ δεκάδι ῥητέον γίνεσθαι
 τὴν πρόσθεσιν ἢ τῷ τελευταίῳ μέρει τῆς δεκάδος.
 ἀλλ' εἰ μὲν ὅλη τῇ δεκάδι προστίθεται ἡ μονάς,
 ἐπεὶ ἡ ὅλη δεκάς σὺν πάσαις ταῖς κατὰ μέρος
 μονάσι νοεῖται, δεήσει τὴν τῆς μονάδος πρόσθεσιν
 32 εἶναι πρόσθεσιν, ὅπερ ἄτοπον· ἀκολουθήσει γὰρ
 τῇ τῆς μονάδος προσθέσει τὴν δεκάδα εἰκοσάδα
 γίνεσθαι, ὃ τῶν ἀμύχανων ὑπῆρχεν. οὐ τοῖνυν
 ὅλη τῇ δεκάδι τὴν μονάδα προστίθεσθαι ῥητέον.
 καὶ μὴν οὐδὲ τῷ τελευταίῳ μέρει τῆς δεκάδος, ἐπεὶ
 οὐκ αὐξήθησεται ἡ δεκάς διὰ τὸ μὴ τὴν τοῦ ἐνός

each monad makes up the number of the nine, as the
 particular monads are nine. And if the subtraction 28
 is from the last monad, then, firstly, the last monad,
 which is indivisible, will be shown to be divisible,
 which is absurd; and secondly, if the monad is sub-
 tracted from the last monad, the nine will no longer
 be able to remain complete.—Further, if the sub- 29
 traction of the monad is from the decad, it is from the
 decad either as existent or as non-existent; but it
 will not be from the existent (for so long as the decad
 remains a decad nothing can be subtracted from it as
 a decad, for if so it will no longer be a decad), nor
 from the non-existent decad; for from what is non- 30
 existent nothing can be subtracted. And of course
 it is impossible to conceive anything other than
 existence and non-existence; therefore nothing is
 subtracted from the decad.

Now by these arguments it has been shown that it
 is not feasible to conceive any number by subtraction;
 and that it is not feasible by addition either is easy to 31
 show by continuing to raise difficulties of a like kind.
 For, again, if the monad is added to the decad, one
 must say that the addition is made either to the whole
 decad or to the last part of the decad. But if the
 monad is added to the whole decad, then, since the
 whole decad is conceived along with all the particular
 monads, the addition which is being made of the
 monad will have to be an addition to all the particu-
 lar monads of the decad, which is absurd; for it will 32
 follow that by the addition of the monad the decad
 becomes twenty, which is a thing impossible. We
 must say, then, that the monad is not added to the
 whole decad. Nor yet to the last part of the decad,
 since the decad will not be increased owing to the

μέρους αὐξησιν εὐθὺς καὶ τῆς ὅλης δεκάδος αὐξησιν
 33 εἶναι. [καὶ] καθόλου τε¹ ἐπὶ πᾶσιν, ἢ μενούση τῇ
 δεκάδι προστίθεται ἢ μονὰς ἢ μὴ μενούση. οὔτε
 δὲ μενούση προστεθείη ποτ' ἄν, ἐπεὶ οὐκέτι μένει
 δεκάς, οὔτε μὴ μενούση· τὴν γὰρ ἀρχὴν μὴ με-
 νούση οὐδὲ πρόσθεσις δύναται γενέσθαι.

34 Ἄλλ' εἶπερ ὁ ἀριθμὸς κατὰ πρόσθεσιν, ὡς ἔφην,
 καὶ κατ' ἀφαίρεσιν ὑφιστάμενος νοεῖται, ἐδείξαμεν
 δὲ ἡμεῖς ὅτι οὐθέτερον ἔστι τούτων, ῥητέον μηδὲν
 εἶναι ἀριθμόν. ὅθεν τοσαῦτα καὶ πρὸς γεωμέτρας
 καὶ ἀριθμητικούς ἀπορητικῶς διεξελθόντες ἀπ'
 ἄλλης ἀρχῆς καὶ τὴν πρὸς τοὺς μαθηματικούς
 ἀντίρρησιν ποιησώμεθα.

¹ καὶ καθόλου τε καὶ cj. Warmington.

fact that the increase of the one part is not *ipso facto*
 an increase of the whole decad.—Generally, too, 33
 and finally, the monad is added to the decad either
 remaining as it is or not remaining. But it will never
 be added to it while it remains, since in that case
 it will no longer remain a decad; nor yet while it
 does not remain, for it is absolutely impossible for
 an addition to be made to it if it does not remain.

But if number is conceived as subsisting through 34
 addition, as I said, and subtraction, and we have
 shown that neither of these exists, one must declare
 that number is nothing. Hence, now that we have
 stated at length all these sceptical arguments against
 the Geometers and Arithmeticians, let us start afresh
 and deliver our attack on the *Mathematici* (or
 "Astrologers").

ποιητικὸν ὀφείλει καὶ αὐτὸ πλάτος ἔχειν, δῆλον οὖν ὡς ὅτι καὶ αἱ εὐθείαι γραμμαὶ συμπληρωτικαὶ οὐσαι τοῦ πλάτους ἐξ ἀνάγκης πλάτος ἔχουσιν, ὥστε μηδὲν εἶναι μῆκος ἀπλατές, διὰ δὲ τοῦτο μηδὲ γραμμῆν.

- 77 Εἰ δὲ καὶ δοίμεν τὴν γραμμῆν μῆκος εἶναι ἀπλατές, τὰ ἀκόλουθα τούτοις ἔτι τούτων ἀπορώτερα. ὥσπερ γὰρ τὸ σημεῖον ῥυὲν ποιεῖ γραμμῆν, οὕτω καὶ ἡ γραμμῆ ῥυεῖσα ποιεῖ ἐπιφάνειαν κατ' αὐτοῦς, ἣτις ἐστὶ, φασί, πέρασ σώματος δύο
- 78 ἔχον διαστάσεις, μῆκος καὶ πλάτος. εἶπερ οὖν ἡ ἐπιφάνεια πέρασ ἐστὶ σώματος, τό γε σῶμα πάντως πεπερασμένον ἐστίν· καὶ εἰ τοῦτο, ὅτε παρατίθεται δύο σώματα ἀλλήλοις, τότε ἦτοι τὰ πέρατα τῶν περάτων ἢ τὰ πεπερατωμένα τῶν πεπερατωμένων ἄψεται, ἢ καὶ τὰ πεπερατωμένα τῶν πεπερατωμένων καὶ τὰ πέρατα τῶν περάτων, ὅλον ἐπὶ τοῦ ἀμφορέως, εἰ νοήσαιμεν πέρασ μὲν τὸ ἔξωθεν ὄστρακον πεπερατωμένον δὲ τὸν ἐν
- 79 αὐτῷ οἶνον. δυοῖν οὖν ἀμφορέων παραβληθέντων ἀλλήλοις ἦτοι τὸ ὄστρακον τοῦ ὄστράκου ἄψεται ἢ ὁ οἶνος τοῦ οἴνου ἢ καὶ τὸ ὄστρακον τοῦ ὄστράκου καὶ ὁ οἶνος τοῦ οἴνου. καὶ εἰ μὲν τὰ πέρατα τῶν περάτων ἄπτεται, τὰ πεπερατωμένα ἀλλήλων οὐχ ἄψεται, τουτέστι τὰ σώματα, ὅπερ ἦν ἀπεμφαῖνον. εἰ δὲ τὰ πεπερατωμένα μὲν ἀλλήλων ἄψεται, τουτέστι τὰ σώματα, τὰ πέρατα δὲ ἀλλήλων οὐχ ἄψεται, ἐκτὸς ἔσται τὰ σώματα τῶν οἰκειῶν
- 80 περάτων. εἰ δὲ καὶ τὰ πέρατα τῶν περάτων ἄπτεται καὶ τὰ πεπερατωμένα τῶν πεπερατωμένων, ἐπισυνθήσομεν τὰς ἀπορίας· ἢ μὲν γὰρ τὰ πέρατα

what is productive of breadth must itself possess breadth, it is plain that the straight lines too, as they serve to fill up the breadth, necessarily possess breadth, so that no "length without breadth" exists, and consequently no line.

And even if we should grant that the line is 77 "length without breadth," the consequences of this will be even more hopeless than those stated. For as the sign when it has flowed ^a makes the line, so also the line when it has flowed makes, according to them, the plane, which is, they say, "the limit of the body," possessing two dimensions, length and breadth. If, then, the plane is the limit of the body, 78 the body certainly is limited; and if so, when two bodies are set beside each other, then either the limits will touch the limits or the things limited the things limited, or the things limited will touch the things limited and also the limits the limits,—as though, in the case of a jar, we were to conceive the external earthenware as the limit, and the wine 79 within it as the thing limited.^b When, then, two jars are set beside each other, either the ware will touch the ware or the wine the wine, or the ware will touch the ware and also the wine the wine. But if the limits touch the limits the things limited (that is, the bodies) will not touch each other, which is absurd. And if the things limited (that is, the bodies) shall touch each other, and the limits shall not touch each other, the bodies will be outside their own limits. And if both the limits touch the limits and the things 80 limited the things limited, we shall be multiplying the difficulties; for where the limits touch each other,

^a Cf. § 29; *Adv. Phys.* i. 376.

^b Cf. *Adv. Phys.* i. 431.

ἀλλήλων ἄπτεται, τὰ πεπερατωμένα οὐχ ἄψεται ἀλλήλων, ἢ δὲ τὰ πεπερατωμένα, ἔκτος ἔσται τὰ σώματα τῶν οἰκείων περάτων, ἐπεὶ πέρασ μὲν 81 ἔστιν ἢ ἐπιφάνεια, πεπερασμένον δὲ τὸ σῶμα. τὰ τε πέρατα σώματά ἐστιν ἢ ἀσώματα. καὶ εἰ μὲν σώματά ἐστι, ψεῦδος ἔσται τοῖς γεωμέτραις τὸ ἀβαθῆ εἶναι τὴν ἐπιφάνειαν. εἰ γὰρ σῶμά ἐστιν, ἐξ ἀνάγκης ἔξει καὶ βάθος· πᾶν γὰρ σῶμα ὀφείλει βάθος ἔχειν. εἶτα οὐδὲ ἄψεται τινος, ἀλλὰ πᾶν ἔσται ἀπειρομέγεθες. εἰ γὰρ σῶμά ἐστιν, ἐπεὶ πᾶν σῶμα πέρασ ἔχει, κάκεινο τὸ πέρασ σῶμα ὄν ἔξει πέρασ, κάκεινο ὁμοίως, καὶ τοῦτ' εἰς 82 ἄπειρον. εἰ δὲ ἀσώματόν ἐστι τὸ πέρασ, ἐπεὶ τὸ ἀσώματον οὐδενὸς δύναται θιγεῖν οὐδὲ θιχθῆναι, τὰ πέρατα οὐχ ἄψεται ἀλλήλων, τούτων δὲ μὴ ἀπτομένων οὐδὲ τὰ πεπερατωμένα ἄψεται ἀλλήλων. κἂν δῶμεν ὄν εἶναι μῆκος ἀπλατὲς τὴν γραμμῆν, ὁ περὶ τῆς ἐπιφανείας λόγος ἄπορος ἔστί. οἷς, κἂν ἡμεῖς μὴ λέγωμεν, ἀπόροις οὖσι συναπορεῖται καὶ τὸ στερεὸν σῶμα, ἐκ τούτων σύνθετον καθεστῶς.

83 Σκοπῶμεν δὲ καὶ οὕτως. εἰ γὰρ σῶμά ἐστιν, ὡς φασὶν οἱ γεωμέτραι, τὸ τὰς τρεῖς ἔχον διαστάσεις, μῆκος πλάτος βάθος, ἤτοι χωριστόν ἐστι τούτων τὸ σῶμα, ὥστε ἄλλο μὲν εἶναι τὸ σῶμα ἄλλο δὲ τὸ μῆκος τοῦ σώματος πλάτος τε καὶ βάθος, ἢ ὁ ἀθροισμὸς τούτων ἐστὶ τὸ σῶμα. ἀλλὰ χωρίζεσθαι μὲν τούτων τὸ σῶμα οὐ πιθανόν ἐστίν· ὅπου γὰρ μήτε μῆκος ἔστι μήτε πλάτος μήτε 84 βάθος, ἐκεῖ οὐχ οἷόν τε νοῆσαι σῶμα· εἰ δὲ ὁ

the things limited will not touch each other, and where the things limited touch, the bodies will be outside their own limits, since the surface is the limit and the body the thing limited.—Also, the limits are 81 either bodies or incorporeal. But if they are bodies, the Geometers will find that it is false that the surface is without depth. For if it is corporeal, it will of necessity have depth; for every body must have depth. Then, too, it will not touch anything but will all be infinite in magnitude. For if it is body, since every body has a limit, that limit too, being a body, will have a limit, and likewise this last one, and so on *ad infinitum*. And if the limit is incorporeal, since 82 the incorporeal cannot touch or be touched by anything,* the limits will not touch each other, and as they do not touch neither will the things limited touch each other. So, even if we grant that the line is “length without breadth,” the account given of the plane surface is dubious. And these things being dubious, along with them doubt is cast—even if we do not affirm it—on the solid body, seeing it is composed of these.

Let us also consider the matter in this way:—If 83 body is, as the Geometers assert, that which has the three dimensions, length, breadth and depth, either the body is separable from these, so that the body is one thing and the length, breadth and depth of the body something different, or else the aggregation of these is the body. But that the body should be separated from these is not credible; for where neither length nor breadth nor depth exists, there it is impossible to conceive body; and if the aggrega- 84

* Cf. *Adv. Phys.* i. 255; “tangere enim et tangi nisi corpus nulla potest res,” *Lucret.* i. 304.

ἀθροισμὸς τούτων νοεῖται σῶμα καὶ ἄλλο παρὰ
 ταῦτα οὐδὲν ὑπάρχει, ἐξ ἀνάγκης, ἐπεὶ ἕκαστον
 τούτων ἀσώματόν ἐστι, καὶ ἡ κοινὴ τῶν ἀσωμά-
 των σύνοδος γενήσεται ἀσώματος. ὡσπερ γὰρ
 ἡ σύνθεσις τῶν στιγμῶν καὶ ἡ σύνοδος τῶν γραμ-
 μῶν ἀσωμάτων φύσει καθεστηκυῶν οὐ ποιεῖ
 στερεὸν καὶ ἀντίτυπον σῶμα, οὕτω καὶ ἡ τοῦ
 πλάτους καὶ ἡ τοῦ μήκους ἐτι δὲ καὶ ἡ τοῦ βάθους
 συνέλευσις ἀσώματος οὔσα οὐκ ἂν ποιῆσαι στερεὸν
 καὶ ἀντίτυπον σῶμα. εἰ δὲ μήτε χωρὶς τούτων
 ἐστὶ τὸ σῶμα μήτε ταῦτ' ἐστίν, ἀνεπινόητον,
 ὅσον ἐπὶ τοῖς γεωμέτραις, γίνεται τὸ σῶμα.
 85 πρὸς τούτοις, εἶπερ μήκους καὶ πλάτους καὶ
 βάθους σύνοδος ποιεῖ σῶμα, ἥτοι πρὶν τῆς συνόδου
 ἕκαστον τούτων νοεῖται περιέχον ἐν ἑαυτῷ τὴν
 σωματότητα καὶ τοὺς ὡσπερ σωματικούς λόγους,
 ἢ μετὰ τὴν τούτων συνέλευσιν ἐπισυνέστη τὸ σῶμα.
 καὶ εἰ μὲν ἕκαστον τούτων πρὶν τῆς συνόδου
 νοεῖται περιεκτικὸν τῆς σωματότητος, ἔσται τού-
 των ἕκαστον σῶμα καὶ οὐ μετὰ τὴν σύνοδον
 86 αὐτῶν ἐκεῖνο γενήσεται. εἰτ' ἐπεὶ τὸ σῶμα οὐ
 μήκος μόνον ἐστίν, οὐδὲ πλάτος κατ' ἰδίαν, οὐδὲ
 βάθος κατὰ περιγραφὴν, ἀλλ' ὁμόσε τὰ τρία, καὶ
 μήκος καὶ πλάτος καὶ βάθος, τούτων τε ἕκαστον
 περιεῖχε τὴν σωματότητα, ἕκαστον αὐτῶν ἔξει
 τὰ τρία, καὶ τὸ μήκος οὐ μόνον ἔσται μήκος ἀλλὰ
 καὶ πλάτος καὶ βάθος, καὶ τὸ πλάτος οὐ μόνον
 ἔσται πλάτος ἀλλὰ καὶ μήκος καὶ βάθος, καὶ τὸ
 βάθος ὁμοίως ἔσται καὶ μήκος καὶ πλάτος. ὅπερ
 87 τελέως ἐστὶν ἀλογώτατον. εἰ δὲ συνελθόντων
 τούτων τότε νοεῖται ἡ σύστασις τοῦ σώματος,
 ἥτοι συνελθόντων αὐτῶν μένει ἡ ἀρχῆθεν φύσις

tion of these is conceived as body, and there is
 nothing else besides these, then, since each of these
 is incorporeal, the united assemblage of these in-
 corporeals will necessarily be incorporeal. For just
 as the combination of the points and the conjunc-
 tion of the lines, which are by nature incorporeal,
 do not make a solid and resistant body, so too the
 union of breadth and length, and depth as well,
 being incorporeal, will not make a solid and resistant
 body. But if the body is neither separate from these
 nor identical with these, the body is—so far as the
 Geometers' account goes—inconceivable.—Further-
 85 more, if the conjunction of length and breadth and
 depth makes body, either each of these is conceived
 as containing in itself corporeality and what we may
 call "the corporeal reasons" before the conjunction,
 or else body is constructed after these have come
 together. But if each of these is conceived as con-
 taining corporeality before the conjunction, each of
 these will be body, and body will not come into being
 after the conjunction.—Moreover, since body is not 86
 length alone, nor breadth by itself, nor exclusively
 depth, but the three together, length and breadth and
 depth, and each of these includes corporeality, each
 of them will possess the three, and the length will be
 not length only but also breadth and depth, and the
 breadth will be not breadth only but also length and
 depth, and similarly the depth will also be length and
 breadth. But this is most completely illogical.—
 And if the composition of body is conceived as taking 87
 place after these have come together, then either the
 original nature of those things which have come

τοῦ μὲν μήκους ὡς μήκους, τοῦ δὲ πλάτους ὡς πλάτους, τοῦ δὲ βάθους ὡς βάθους, ἢ μεταβέ-
 88 βληκεν εἰς τὴν σωματότητα. καὶ εἰ μὲν μένει ἢ ἀρχῆθεν αὐτῶν φύσις, ἐπεὶ ἀσώματα ἔστιν, οὐδὲ διάφορον ποιήσει σῶμα, ἀλλὰ καὶ μετὰ τὴν συν-
 89 οδὸν ἀσώματα μένει, τὴν φύσιν ὄντα ἀσώματα. εἰ δὲ συνελθόντα μεταβάλλει εἰς τὴν σωματότητα, ἐπεὶ τὸ ἐπιδεχόμενον μεταβολὴν εὐθέως ἔστι σῶμα, ἕκαστον τούτων καὶ πρὶν τῆς εἰς ταῦτο συνόδου ἔσται σῶμα, οὕτω τε καὶ τὸ ἀσώματον γενήσεται σῶμα. ὥσπερ τε τὸ σῶμα μεταβαλὼν ἄλλην μὲν ἀντ' ἄλλης ἔχει ποιότητα, μένει δὲ οὐδὲν ἥσσον σῶμα, οἷον τὸ λευκόν, ἵνα μέλαν γένηται, καὶ τὸ γλυκύ, ἵνα πικρόν, καὶ ὁ οἶνος, ἵνα ὄξος, καὶ ὁ μόλιβδος, ἵνα ψιμμύθιον, καὶ ὁ χαλκός, ἵνα ἰός, ἄλλην μὲν ἀντ' ἄλλης ἀναδέχεται ποιότητα, οὐκ
 90 ἐκβαίνει δὲ τοῦ σώματα εἶναι, ἀλλὰ καὶ τὸ μέλαν, ὅτε ἐκ λευκοῦ γέγονε μέλαν, καὶ τὸ πικρόν, ὅτε ἐκ τοῦ γλυκέος γέγονε πικρόν, καὶ τὸ ὄξος, ὅτε ἐκ τοῦ οἴνου γέγονεν ὄξος, μένει σώματα, οὕτω καὶ ταῦτα, εἴπερ μεταβάλλει [εἰς σώματα],¹ ἀλλὰ μὲν ἀντ' ἄλλων ἔσται ἀσώματα, ἀσώματα² δὲ οὐδὲν ἦττον· οὐ γὰρ ἐκβήσεται τὴν ἰδίαν φύσιν. εἰ οὖν οὔτε πρὶν τῆς συνελεύσεως τούτων ἔστι νοῆσαι τὸ σῶμα οὔτε μετὰ τὴν συνέλευσιν αὐτῶν, παρὰ δὲ ταῦτα οὐκ ἔστιν ἄλλως ἐπινοῆσαι, οὐδὲν
 91 ἔστι σῶμα. πρὸς δὲ τούτοις, εἰ μηδὲν ἔστι μήκος μηδὲ πλάτος μηδὲ βάθος, οὐδὲ τὸ κατὰ μετουσίαν τούτων νοούμενον ἔσται σῶμα· οὐχὶ δὲ γε μήκος ἔστιν οὐδὲ πλάτος οὐδὲ βάθος, ὡς διὰ τῶν ἔμ-

¹ εἰς σώματα seclusi.

² ἀσώματα, ἀσώματα Heintz : σώματα, σώματα mss., Bekk.

together remains,—that of length as length, of breadth as breadth, of depth as depth,—or it is changed to corporeality.^a But if their original 88 nature remains, since they are incorporeal they will not form a different body, but even after their conjunction they will remain incorporeal, being incorporeal by nature. And if after coming together they 89 change to corporeality, then, since that which admits of change is *ipso facto* corporeal, each of these will be body even before their coming together, and thus too the incorporeal will be body.—Also, just as the body when it has changed exchanges one property for another, but none the less remains body,—for example, white to become black, and sweet to become bitter, and wine to become vinegar, and lead to become white lead, and bronze to become rust, exchange one property for another yet do not cease to be bodies, but the black, when from being white it 90 has become black, and the bitter, when from being sweet it has become bitter, and the vinegar, when from being wine it has become vinegar, all remain bodies,—so these dimensions also, if they change, will change from one sort of incorporeal to another, but none the less (will remain) incorporeal; for they will not go out of their own proper nature.—If, then, it is not possible to conceive the body either before the coming together of these dimensions or after their coming together, and besides these no other alternative can be conceived, body is nothing.—And 91 further, if neither length is anything, nor breadth, nor depth, that which is conceived as participating in these will not be body; but length is not anything, nor is breadth, nor depth, as we have already pointed

^a Cf. *Adv. Phys.* i. 371 ff.

προσθεν παρεμυθησάμεθα· οὐδὲ τὸ κατὰ μετουσίαν ἄρα τούτων νοούμενον ἔσται σῶμα.

92 Τὰς μὲν οὖν γεωμετρικὰς ἀρχὰς οὕτω συμβέβη-
κεν ἀνυποστάτους εἶναι· τούτων δὲ ἀναιρουμένων
οὐδὲ ἄλλο τι γεωμετρικὸν θεώρημα συστήναι
δύναται. ὅποιον γὰρ ἂν ᾗ τοῦτο, γραμμικῶς
ὀφείλει ἀποδείκνυσθαι, ἐδείξαμεν δὲ ἡμεῖς ὅτι
οὐδέν ἐστιν ἢ γενικὴ γραμμὴ, ᾧ ἀκολουθεῖ μηδὲ
τῶν ἐπ' εἶδους τινὰ ὑπάρχειν, εἴαν τε εὐθείαν τις
ταύτην ὑποτίθεται εἴαν τε κεκλασμένην εἴαν τε
93 ἄλλως πως ἔχουσιν. ὅθεν ἤρκει μὲν ἴσως ἐν
τούτοις περατοῦν τὴν πρὸς τοὺς γεωμέτρας
ἀντίρρησην· ὁμως δὲ ἐπαγωνιζόμενοι πειρασόμεθα
διδάσκειν ὅτι κἂν τῶν ἀρχῶν ἀποστῶμεν τῶν
τῆς γεωμετρίας, οὐ δύνανται θεώρημα συστήσασθαι
94 οἱ γεωμέτραι οὐδ' ἀποδείξαι. καίτοι πρὶν τούτων
καὶ πρὸς τὰς ὑποβεβηκυίας αὐτῶν ἀρχὰς οὐκ
ὀλίγα δυνατόν ἐστι λέγειν, οἷον ὅταν φῶσιν εὐθείαν
εἶναι γραμμὴν τὴν ἐξ ἴσου τοῖς ἑαυτῆς μέρεσι
κειμένην. ἵνα γὰρ τὰ ἄλλα παρῶμεν, ἐκεῖνο μὲν
συμφανές ἐστιν ὅτι τῆς γενικῆς γραμμῆς μὴ οὐσης
οὐδὲ εὐθεία γραμμὴ γένοιτ' ἂν· ὡς γὰρ ζῶον μὴ
ὄντος οὐδὲ ἄνθρωπος ἔστι καὶ ἀνθρώπου μὴ ὄντος
οὐδὲ Σωκράτης ἔστιν, οὕτω τῆς γενικῆς ἀναιρου-
μένης γραμμῆς συναήρηται καὶ ἡ ἐπίπεδος εὐθεία
95 γραμμὴ. εἶτα καὶ τὸ ἴσον λέγεται διχῶς, κατὰ
ἓνα μὲν τρόπον τὸ ἰσομέγεθες καὶ μήτε ὑπερέχον
ἐκεῖνου τοῦ ᾧ λέγεται ἴσον μήτε ὑπερεχόμενον,
καθὸ καὶ τὸ πηχυαῖον ξύλον ἴσον εἶναι λέγομεν
τῷ πηχυαίῳ, καθ' ἕτερον δὲ τὸ ἔχον ἐξ ἴσου τὰ
μέρη κείμενα, τουτέστι τὸ ὁμαλόν· οὕτω γοῦν τὸ

out^a; therefore that which is conceived as partici-
pating in these will not be body.

Thus, as regards the principles of geometry, the 92
result is that they are unfounded; and as these are
abolished no other geometrical theorem can subsist.
For the theorem, of whatever sort it be, must be
proved by a diagram, but we have shown^b that the
generic line is nothing, and from this it follows that
none of the specific lines exist, whether one assumes
a straight one, or a curved one, or one of some other
form. Hence, it might, no doubt, have sufficed to 93
finish at this point our confutation of the Geometers;
however, we shall contend against them further and
try to show that, even if we disregard the principles
of geometry, the Geometers are unable to construct
or prove a theorem. Before this, however, no little 94
can be said against their underlying principles,—as,
for instance, when they declare that “a straight line
is that which is equally placed with its parts.” For,
to pass over all other objections, this one is obvious,—
that the generic line being non-existent, the straight
line will not exist; for just as “man” does not exist
if “animal” is non-existent, and “Socrates” does
not exist if “man” is non-existent, so if the generic
line is destroyed the plane straight line is destroyed
along with it.—Moreover, the term “equal” is used 95
in two senses, in one sense as “equal in magnitude”
and neither exceeding nor being exceeded by that
to which it is said to be equal (as we say that the
staff of a cubit's length is equal to a cubit's length),
in another sense of “that which has its parts placed
equally,” that is to say, “the even”; thus, for

^a Cf. § 86.

^b Cf. §§ 37 ff.

96 ἴσον ἔδαφος καλοῦμεν ἀντὶ τοῦ ὀμαλῶν. διχῶς
 οὖν τοῦ ἴσου προσαγορευομένου, ὅταν οἱ γεω-
 μέτραι τὴν εὐθείαν γραμμὴν ὑπογράφοντες φάσιν
 “εὐθεία ἐστὶ γραμμὴ ἢ ἐξ ἴσου τοῖς ἑαυτῆς
 μέρεσι κειμένη,” ἢτοι τὸ κατὰ τὸ πρῶτον σημαίνο-
 μενον λαμβάνουσιν ἴσον ἢ τὸ κατὰ τὸ δεύτερον.
 ἀλλ’ εἰ μὲν τὸ κατὰ τὸ πρῶτον, τελέως εἰσὶν
 ἀνόητοι· οὐδένα γὰρ ἔχει νοῦν τὸ εὐθείαν εἶναι
 γραμμὴν τὴν ἰσομεγέθη τοῖς ἑαυτῆς μέρεσι καὶ
 μήτε ὑπερέχουσαν ταῦτα μήτε ὑπερεχομένην ὑπὸ
 97 τούτων. εἰ δὲ τὸ κατὰ τὸ δεύτερον, δι’ αὐτοῦ τὸ
 ζητούμενον¹ διδάξουσιν, εἶγε ὅτι μὲν ἔστιν εὐθεία
 παριστᾶσιν ἐκ τοῦ ὀμαλῶς τε καὶ ἐπ’ εὐθείας ἔχειν
 κείμενα τὰ μέρη, τὸ δὲ ἐπ’ εὐθείας τι κείσθαι οὐκ
 98 ἔστι μαθεῖν μὴ ἐπιβαλόντας τῇ εὐθείᾳ. πολλῶν δὲ
 ἀποπῶτατοι τυγχάνουσι κάκεινως ὀριζόμενοι “εὐ-
 θεία ἐστὶν ἥτις ἐξ ἴσου τοῖς ἑαυτῆς πέρασι στρέ-
 φεται” ἢ οὕτως “ἥτις περὶ τὰ ἑαυτῆς πέρατα
 στρεφομένη πᾶσι τοῖς ἑαυτῆς μέρεσιν ἄπτεται
 τοῦ ἐπιπέδου.” πρῶτον μὲν γὰρ καὶ αὐταὶ αἱ
 ἀποδόσεις ὑποπίπτουσι ταῖς πρότερον εἰρημέναις
 ἡμῖν ἀπορίαις· εἶτα, καθὼς καὶ οἱ Ἐπικουρείοι
 φασιν, ἢ τοῦ κενοῦ εὐθεία εὐθεία μὲν ἐστίν, οὐ
 στρέφεται δὲ διὰ τὸ καὶ αὐτὸ τὸ κενὸν μήτε ὅλον
 99 μήτε κατὰ μέρος κίνησιν ἐπιδέχεσθαι. ἢ μὲν γὰρ
 ἐπὶ τέλει ἀπόδοσις καὶ εἰς τὸν δι’ ἀλλήλων ἐμπίπτει
 τρόπον, ὅς ἐστι μοχθηρότατος. τό τε γὰρ ἐπί-
 πεδον διὰ τῆς εὐθείας διδάσκουσι τὴν τ’ εὐθείαν
 διὰ τοῦ ἐπιπέδου· εὐθείαν μὲν γὰρ εἶναι φασιν
 ἥτις εἰς πάντα τὰ μέρη τοῦ ἐπιπέδου ἄπτεται,

¹ δι’ αὐτοῦ τὸ ζητούμενον Heintz : δι’ αὐτοῦ τοῦ ζητούμενου
 MSS., Bekk.

instance, we call a pavement “equal” instead of
 “even” (or “level”). The term “equal,” then, 96
 being applied in two ways, when the Geometers in
 describing the straight line say that “a straight line
 is that which lies equally with its parts,” they are
 taking the term “equal” either in the first signifi-
 cation or in the second. But if it is in the first, they are
 perfectly senseless; for there is no sense in saying
 that the straight line is of equal magnitude with its
 parts, neither exceeding these nor being exceeded by
 these. And if it is in the second sense, they will be 97
 proving the matter in question by means of itself,
 seeing that they establish the fact that it is straight
 from the fact that it has its parts lying evenly and in
 a straight line, whereas it is not possible to learn that
 a thing lies in a straight line without having sensed
 the straight line. But they are far more absurd when 98
 they give the following definition,—“A straight line
 is that which revolves equally with its limits,” or
 this—“which in revolving round its limits touches the
 plane with all its parts.” For, firstly, these descrip-
 tions are subject to the doubts already expressed
 by us; and secondly, as the Epicureans affirm, the
 straight line of the void is, indeed, straight, but does
 not revolve because the void itself does not admit of
 motion either as a whole or in part. And the last de- 99
 scription falls also into the vice of circular reasoning,^a
 which is most unsound. For they both explain the
 plane by means of the straight line and the straight
 line by means of the plane; for they say that the
 straight line is that which touches the plane with all its

^a Cf. P.H. I. 117.

ἐπίπεδον δὲ τυγχάνειν δι' οὐ ἢ καταγομένη εὐθεία
 πᾶσι τοῖς μέρεσιν ἄπτεται, ὥσθ' ἵνα μὲν τὴν
 εὐθείαν μάθωμεν, πρῶτον τὸ ἐπίπεδον μαθεῖν δεῖ,
 ἵνα δὲ τοῦτο, ἀναγκαῖον προεγνωκέναι τὴν εὐθείαν.
 ὅπερ ἄτοπον. καθόλου τε ὁ διὰ τοῦ ἐπιπέδου
 τὴν εὐθείαν διδάσκων οὐδὲν ἄλλο ποιεῖ ἢ δι'
 εὐθείας τὴν εὐθείαν παρίστησιν, ἐπεὶ περ τὸ ἐπίπεδον
 πολλαί εἰσιν εὐθεῖαι κατ' αὐτούς.

- 100 Οἷος δὲ ἔστιν ὁ περὶ τῆς εὐθείας λόγος, τοιοῦτος
 γένοιτ' ἂν καὶ ὁ περὶ τῆς γωνίας. πάλιν γὰρ ὅταν
 ὑπογράφοντες λέγωσιν ὅτι γωνία ἔστι δυοῖν εὐ-
 θειῶν μὴ κατάλληλα κειμένων τὸ ὑπὸ τὴν κλίσην
 ἐλάχιστον, ἥτοι ἐλάχιστον λέγουσι τὸ ἀμερὲς σῶμα
 101 ἢ τὸ κατ' αὐτούς σημεῖον καὶ στιγμαίν. ἀλλὰ τὸ
 μὲν ἀμερὲς σῶμα οὐκ ἂν εἴποιεν, ἐπεὶ περ τοῦτο
 μὲν οὐδ' εἰς δύο μέρη δύναται διαιρεῖσθαι, ἢ δὲ
 γωνία κατ' αὐτούς ἐπ' ἄπειρον τέμνεται. καὶ
 ἄλλως, τῆς γωνίας ἢ μὲν μείζονά φασι εἶναι
 ἢ δὲ μικροτέραν· τοῦ δὲ ἐλαχίστου σώματος οὐδὲν
 ἔστι βραχύτερον, ἐπεὶ ἐκεῖνο ἀλλ' οὐ τοῦτο γενή-
 102 σεται ἐλάχιστον. λείπεται ἄρα τὸ κατ' αὐτούς
 σημεῖον εἶναι λέγειν· ὁ καὶ αὐτὸ τῶν ἀπόρων. εἰ
 γὰρ πάντῃ πανταχῶς ἀδιάστατόν ἔστι τὸ σημεῖον,
 οὐ διαιρεθήσεται ἢ γωνία. καὶ μὴν οὐδὲ μείζων
 τις ἔσται ἢ ἐλάσσων γωνία· ἐν γὰρ τοῖς μηδεμίαν
 103 διαφορά. ἄλλως τε, εἰ μεταξύ τῶν εὐθειῶν πίπτει
 τὸ σημεῖον, διορίζει τὰς εὐθείας, διορίζον δὲ οὐκ
 104 ἔσται ἀδιάστατον. νῆ Δία, ἀλλ' εἰώθασί τινες ἐξ

parts, and the plane is that which, when the straight
 line is drawn over it, it touches it with all its parts, so
 that in order to get to know the straight line we must
 first get to know the plane, and in order to do this, we
 must necessarily know beforehand the straight line ;
 which is absurd. And, in sum, he who explains the
 straight line by means of the plane is doing nothing
 else than establishing the straight line by means of
 the straight line, since, according to them, the plane is
 many straight lines.

The argument about the angle will be of much the 100
 same kind as that about the straight line. For again,
 when in describing the angle they say that the angle
 is "the minimum under the inclination of two lines
 which do not lie parallel," they mean by "mini-
 mum" either the indivisible body or what they
 call the sign or point. But they will not mean the 101
 indivisible body, since this cannot be divided into
 two parts, whereas, according to them, the angle is
 divided to infinity. And besides, in the case of the
 angle, one, they say, is greater, another lesser ; but
 nothing is smaller than the minimal body, for if so it,
 and not the body, would be the minimum. It remains 102
 then to say that it is what they call the sign ; but
 this itself is also dubious. For if the sign is in every
 way wholly without dimensions, the angle will not
 be divided.—Moreover, no angle will be greater or
 lesser ; for in things which have no dimension there
 will be no difference in respect of magnitude. Be- 103
 sides, if the sign falls between the straight lines, it
 divides the straight lines, and as dividing it will not
 be without dimensions.—But, in sooth, some of them 104

αὐτῶν γωνίαν λέγειν τὸ ὑπὸ τὴν κλίσειν πρῶτον διάστημα. πρὸς οὓς

ἀπλοῦς ὁ μῦθος τῆς ἀληθείας ἔφν.

ἦτοι γὰρ ἀμέρες ἔστι τὸ διάστημα τοῦτο ἢ μεριστόν. ἀλλ' εἰ μὲν ἀμέρες, αἱ προειρημένας τῶν ἀποριῶν ἀκολουθήσουσιν αὐτοῖς, εἰ δὲ μεριστόν, οὐδὲν ἔσται πρῶτον· τοῦ γὰρ ὑποσταθέντος πρώτου ἕτερον εὑρεθήσεται πρότερον διὰ τὴν ἀρεσκο-
 105 μένην αὐτοῖς εἰς ἀπειρον τῶν ὄντων τομῆν. ἐὼ λέγειν ὅτι καὶ ἄλλη τινὶ τεχνολογίᾳ μάχεται ἢ τοιαύτη τῶν γωνιῶν νόησις. διαιρούμενοι γὰρ φασι τῆς γωνίας τὴν μὲν τινα εἶναι ὀρθὴν τὴν δὲ ἀμβλείαν τὴν δὲ ὀξείαν, καὶ τῆς μὲν ἀμβλείας ἄλλην καὶ ἄλλην μᾶλλον ἀμβλυτέραν εἶναι, ὡσαύτως δὲ
 106 καὶ τῆς ὀξείας. εἰ δὲ γωνίαν φασὲν τὸ ἐλάχιστον ὑπὸ τὴν κλίσειν διάστημα, οὐ σωθήσονται αἱ τοιαῦται τῶν γωνιῶν διαφοραί, παρόσον ὑπερέχουσί τε ἀλλήλας καὶ ὑπερέχονται ὑπ' ἀλλήλων. ἢ εἴπερ σώζονται, ἀναιρεῖται ἡ γωνία, μὴ ἔχουσα ἑστηκὸς μέτρον ᾧ διαγνωσθήσεται.

Περὶ μὲν οὖν εὐθείας γραμμῆς καὶ γωνίας
 107 τοιαῦτα ρητέον πρὸς αὐτοὺς· ὀριζόμενοι δὲ καὶ τὸν κύκλον φασὶ "κύκλος ἔστι σχῆμα ἐπιπέδον ὑπὸ μᾶς γραμμῆς περιεχόμενον, πρὸς ἣν αἱ ἀπὸ τοῦ κέντρου προσπίπτουσαι εὐθεῖαι ἴσαι εἰσὶν ἀλλήλαις," ματαιάζοντες· τοῦ γὰρ σημείου καὶ τῆς γραμμῆς καὶ τῆς εὐθείας καὶ ἔτι τοῦ ἐπιπέδου καὶ τῆς γωνίας ἀνηρημένων οὐδὲ κύκλος ἐπινοηθῆναι δύναται.

108 Ἄλλ' ἵνα μὴ δοκῶμεν σοφιστικοί τινες εἶναι καὶ τὴν σύμπασαν τῆς ἀντιρρήσεως κατασκευῆν

are wont to say that the angle is "the first interval under the inclination." Against whom

By nature simple is the tale which truth doth tell.*

For this interval is either without parts or with parts. But if it is without parts, they will find themselves beset in consequence with the difficulties already stated; and if it has parts, none of them will be "first"; for another will be found to be prior to that assumed to be "first" because of the division of existents *ad infinitum* which is approved by them. I forbear to argue 105 that such a notion of the angles is in conflict with another piece of their technology. For in their classification they say that one class of angle is "right," another "obtuse," another "acute"; and that, of the obtuse angles, some are more obtuse than others, and so likewise with the acute angles. But if we affirm that 106 the angle is "the least interval under the inclination," such differences in angles will not be preserved, in so far as they both exceed one another and are exceeded by one another. Or, if they are preserved, the angle is destroyed, not possessing a fixed standard by which it can be distinguished.

Such, then, are the arguments we must use against them with respect to the straight line and the angle; and in defining the circle they say "The circle is a 107 plane figure enclosed by one line, and the straight lines from the centre which fall on this are equal to one another," talking idly; for when the sign and the line and the straight line, and the plane, too, and the angle are destroyed, the circle cannot be conceived.

But in order that we may not seem to be sophistical 108 people and to expend all the reasoning in our refuta-

* Cf. Eurip. *Phoeniss.* 469.

ἐν μόαις καταναλίσκεω ταῖς τῆς γεωμετρίας ἀρχαῖς, φέρε μετελθόντες, ὡς πρότερον ὑπεσχόμεθα, καὶ τὰ μετὰ τὰς ἀρχὰς αὐτῶν θεωρήματα
 109 ἐπισκεψώμεθα. ὅταν οὖν λέγουσι τὴν δοθείσαν εὐθείαν δίχα τεμεῖν, ἤτοι τὴν ἐπὶ τοῦ ἄβρακος διδομένην λέγουσι διχοτομεῖν ἢ τὴν ἀπὸ ταύτης κατὰ μετάβασιν νοουμένην. οὐτε δὲ τὴν ἐπὶ τοῦ ἄβρακος δοθείσαν διχοτομεῖν ἐροῦσιν· αὕτη μὲν γὰρ μήκος καὶ πλάτος αἰσθητὸν ἔχειν φαίνεται, ἢ δὲ κατ' αὐτοὺς εὐθεία γραμμὴ μήκός ἐστιν ἀπλατές, ὥστε μὴ <γραμμὴ>¹ οὐσα κατ' αὐτοὺς ἢ γραμμὴ ἢ ἐπὶ τοῦ ἄβρακος οὐδὲ δίχα τμηθήσεται ὡς γραμμὴ.
 110 καὶ μὴν οὐδὲ ἢ ἀπὸ ταύτης κατὰ μετάβασιν νοουμένην. ὑποκείσθω γὰρ λόγου χάριν ἐξ ἑννέα στιγμῶν συνεστῶσα, ἀφ' ἑκατέρου μὲν τῶν ἄκρων τεσσάρων καὶ τεσσάρων ἀριθμουμένων, μιᾶς δὲ τὰς δύο τετράδας μεσολαβούσης στιγμῆς. οὐκοῦν εἰ δίχα τέμνεται ἢ ὅλη γραμμὴ, ἤτοι μεταξὺ ταύτης τῆς πέμπτης στιγμῆς καὶ τῆς ἑτέρας τετράδος ἐνεχθήσεται τὸ τέμνον, ἢ κατ' αὐτῆς τῆς
 111 πέμπτης, ὥστε καὶ αὐτὴν διχάζειν. τὸ μὲν οὖν μεταξὺ τῆς πέμπτης στιγμῆς καὶ τῆς ἑτέρας τετράδος φέρεσθαι τὸ τέμνον τῶν ἀλόγων· γενήσεται γὰρ ἄνισα τὰ τμήματα, καὶ τὸ μὲν ἐκ τεσσάρων στιγμῶν συγκεῖμενον τὸ δὲ ἐκ πέντε. τὸ δὲ αὐτὴν διχάζειν τὴν στιγμὴν πολλῶν τοῦ προτέρου ἀλογώτερον· οὐκέτι γὰρ ἀδιάστατον ἀπολείψουσι τὸ σημεῖον, ὃ γε διχάζεται πρὸς τοῦ
 112 τέμνοντος. ὁ δὲ αὐτὸς λόγος καὶ ἐπειδὴν φῶσι τὸν κύκλον εἰς ἴσα τέμνειν. εἰ γὰρ ὁ κύκλος εἰς ἴσα τέμνεται, πάντως ἐπεὶ μεσαίτατον ἔχει τὸ

¹ <γραμμὴ> addidi.

tion on the principles of geometry alone, come and let us pass on, as we previously promised,^a and investigate the theorems which come after their principles. When, then, they say that they will “bisect the given 109 straight line,”^b they mean that they are bisecting either that given on the board or that which is conceived by transference from it. But they will not mean that they are bisecting that given on the board; for this appears to possess sensible length and breadth, whereas, according to them, the straight line is “length without breadth,” so that the line on the board, not being a line according to them, will not be bisected like a line. Nor, indeed, will the line which 110 is conceived by transference from that on the board. For let us assume, for the sake of argument, that it is composed of nine points, four being numbered from the one extremity and four from the other and one point occupying the middle place between the two sets of four. Then, if the whole line is bisected, the secant will strike either between this fifth point and one of the sets of four or on the fifth point itself so as to divide it in two. That the secant should 111 strike between the fifth point and one of the sets of four is, however, illogical; for the sections will be unequal, one being made up of four points and the other of five. But the dividing the point itself into two is much more illogical than the former alternative; for they will no longer be leaving the sign without dimensions,^c as it is divided into two by the secant.—And the argument is the same when 112 they say they are cutting the circle into equal parts.^d For if the circle is cut into equal parts, then, since it

^a Cf. § 93.

^b Cf. § 20.

^c Cf. Adv. Phys. i. 282 ff.

^d Cf. Adv. Phys. i. 284 ff.

κέντρον, ὃ καὶ αὐτὸ ἐστὶ σημεῖον, ἥτοι τῷδε τῷ
 τμήματι ἢ τῷδε [τινι] προσμερισθήσεται, ἢ καὶ
 αὐτὸ δίχα τμηθήσεται. ἀλλὰ τὸ μὲν τῷδε ἢ τῷδε
 προσμερισθῆναι ἄνισον τὴν διχοτόμησιν ποιεῖ, τὸ
 δὲ καὶ αὐτὸ διχοτομεῖσθαι μαχόμενόν ἐστὶ τῷ
 113 ἀδιάστατον καὶ ἀμερές ὑπάρχειν τὸ σημεῖον. τὸ
 τε τέμνον τὴν γραμμὴν ἥτοι σῶμά ἐστιν ἢ ἀσώ-
 ματον. οὔτε δὲ σῶμα δύναται τυγχάνειν ἀμερές
 γάρ τι καὶ ἀσώματον καὶ μὴ ὑποπίπτον αὐτῷ οὐκ
 ἂν τέμνοι· οὔτε ἀσώματον. τουτὶ γὰρ πάλιν εἰ
 μὲν στιγμή ἐστὶ, τῷ ἀμερῆς εἶναι καὶ κατὰ ἀμεροῦς
 πίπτειν οὐκ ἂν τέμνοι, εἰ δὲ γραμμὴ, πάλιν ἐπεὶ τῷ
 πέρατι ἑαυτῆς ὀφείλει τέμνειν, τὸ δὲ πέρας αὐτῆς
 114 ἐστὶν ἀμερές, οὐ τέμνει. ἄλλως τε τὸ τέμνον
 πέρας ἥτοι μέσον τῶν δυοῖν στιγμῶν πίπτει δι-
 χοτομεῖ τὴν γραμμὴν, ἢ κατὰ μέσου φερόμενον
 τοῦ σημείου. ἀλλὰ τὸ μὲν κατὰ μέσου φέρεσθαι
 τοῦ σημείου τῶν ἀδυνάτων· δεήσει γάρ, ὡς
 πρότερον ἐλέγομεν, τὸ καθ' οὐ φέρεται μερι-
 στὸν εἶναι καὶ μηκέτι ἀδιάστατον τυγχάνειν.¹
 115 μεταξὺ δὲ τῶν δυοῖν στιγμῶν φέρεσθαι πολλῷ
 ἀλογώτερον. πρῶτον μὲν γὰρ οὐδὲν δύναται μετα-
 ξὺ συνεχείας μέσον πεσεῖν πέρας· εἶτα κἂν δοθῇ
 τὸ τοιοῦτον ὡς δυνατόν, ὀφείλει μετακινεῖν τὰ ὦν
 μεταξὺ τάσσεται, εἶπερ ἐστὶ συνεχῆ· ταῦτα δ' ἐστὶν
 ἀκίνητα. τοίνυν ἄπορος καὶ ὁ περὶ τοῦ τέμνοντός
 116 ἐστὶ λόγος. οὐ μὴν ἀλλὰ κἂν δώμεν αὐτοῖς τὰς
 ἀφαιρέσεις ποιέσθαι ἐπὶ τῶν αἰσθητῶν τούτων
 γραμμῶν, οὐ δυνήσονται οὐδ' οὕτως εὐδοῆσαι. ἦ

has the centre (which itself is a point), in the very
 middle, the centre will certainly be annexed either to
 this section or to that, or else it will itself be cut in
 two. But the fact of its being annexed to this section
 or that makes the bisection unequal; and that it should
 itself be bisected is in conflict with the fact that the
 sign is without dimensions and without parts.—Also, 113
 the secant which cuts the line is either a body or incor-
 poreal. But it cannot be a body; for, if so, it will not
 cut a thing without parts and incorporeal and on which
 it cannot strike; nor yet can it be incorporeal. For
 this, again, if it is a point, will not cut owing to its
 being without parts and striking on what is without
 parts; and if it is a line, again it does not cut since it
 must cut with its limit, and its limit is without parts.—
 Besides, the limit which cuts bisects the line either by 114
 falling between the two points, or by striking on the
 middle of the sign. But that it should strike on the
 middle of the sign is a thing impossible. For, as we
 said before, that on which it strikes will have to
 possess parts and be no longer without dimensions.
 And that it should strike between the two points is 115
 much more irrational. For, firstly, no limit can fall
 in the middle of what is continuous; and secondly,
 even if we allow that such a thing is possible, it must
 move apart the things between which it posts itself,
 if they are continuous; but these are immovable.
 So then, the account given of the secant is dubious.
 —Moreover, even if we grant them that subtrac- 116
 tions are made in the case of these sensible lines,
 even so they will be unable to make progress. For

¹ τὸ καθ' οὐ φέρεται μ. εἶναι καὶ μ. ἀδ. τυγχάνειν scriptsi: τὸ
 καθόλου φέρεσθαι μ. εἶν ἢ μ. ἀδ. τυγχάνη mss., Bekk.: τὸ καθ' οὐ
 φέρεται μ. εἶναι, ἵνα μ. cj. Bekk.

γὰρ ἀφ' ὅλης τῆς γραμμῆς ἡ ἀφαίρεσις γενήσεται ἢ ἀπὸ μέρους, καὶ τὸ ἀφαιρούμενον ἢ ἴσον ἀπὸ ἴσου ἢ ἄνισον ἀπὸ ἀνίσου [ἢ ἐναλλάξ]¹ γενήσεται· οὐδὲν δὲ τούτων ἐστὶν εὐπορον, ὡς ἐν τῷ πρὸς τοὺς γραμματικούς καὶ ἐν τῷ πρὸς τοὺς φυσικούς ὑπομνήματι παρεστήσαμεν· οὐκ ἄρα δυνατόν ἐστι τοῖς γεωμέτραις ἀφαιρεῖν τι καὶ τέμνειν ἀπὸ γραμμῆς.

¹ [ἢ ἐναλλάξ] del. Heintz.

the subtraction will either be from the whole line or from a part, and the part subtracted will be either an equal part from an equal, or an unequal from an unequal; but none of these is feasible, as we have established in our treatise *Against the Grammarians*^a and in that *Against the Physicists*; therefore it is not possible for the Geometers to subtract or cut off anything from the line.

^a Cf. *Adv. Gram.* 162 ff.; *Adv. Phys.* i. 280 ff.; *P.H.* iii. 85 ff.

Δ

ΠΡΟΣ ΑΡΙΘΜΗΤΙΚΟΥΣ

1 Ἐπειδὴ τοῦ ποσοῦ τὸ μὲν ἔστιν ἐν τοῖς συνεχέσει σώμασιν, ὃ δὴ μέγεθος καλεῖται, περὶ ὃ ἔστι μάλιστα ἡ γεωμετρία, τὸ δὲ ἐν διεστώσιν, ὅπερ ἀριθμὸς καθέστηκεν, περὶ ὃν ἡ ἀριθμητικὴ καταγίνεται, σκοπῶμεν ἀπὸ τῶν γεωμετρικῶν ἀρχῶν καὶ θεωρημάτων μετελθόντες καὶ τὰ περὶ ἀριθμοῦ· τούτου γὰρ ἀναιρεθέντος οὐθ' ἢ περὶ αὐτὸν συνισταμένη γενήσεται τέχνη.

2 Καθόλου μὲν οὖν οἱ ἀπὸ τῶν μαθημάτων Πυθαγορικοὶ μεγάλην ἀπονέμουσι δύναμιν τοῖς ἀριθμοῖς ὡς τῆς τῶν ὄλων φύσεως κατ' αὐτοὺς διοικουμένης. ὅθεν καὶ αἰεὶ ποτε ἐπεφώνουν τὸ

ἀριθμῶ δέ τε πάντ' ἐπέοικεν,

ὀμνύοντες οὐ μόνον τὸν ἀριθμὸν ἀλλὰ καὶ τὸν ὑποδείξαντα αὐτοῖς τοῦτον Πυθαγόραν ὡς θεὸν διὰ τὴν ἐν ἀριθμητικῇ δύναμιν, λέγοντες

οὐ μὰ τὸν ἀμετέρα ψυχῆ παραδόντα τετρακτύν,
πηγὴν ἀενάου φύσεως ριζώματ' ἔχουσαν.

3 τετρακτὺς δὲ προσηγορεύετο παρ' αὐτοῖς ὃ ἐκ τῶν πρώτων τεσσάρων ἀριθμῶν συγκεῖμενος δέκα ἀρι-
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BOOK IV

AGAINST THE ARITHMETICIANS

SINCE one kind of quantity, which is called "magnitude," and which is the chief concern of geometry, belongs to continuous bodies, and another kind, which is number, the subject of arithmetic, belongs to discontinuous, let us pass on from the principles and theorems of geometry and examine also those which deal with number; for if this is destroyed, the art which is constructed to handle it will not exist.

Now, speaking generally, the mathematical Pythagoreans^a ascribe great power to numbers, as though the nature of all things was governed in conformity with them. Hence, they constantly kept repeating—

All things, too, are like unto number.^b

And they swear not only by number but also by Pythagoras, the man who showed it to them, as though he were a god because of the power of arithmetic, saying,^c—

Nay, by the man I swear who bequeathed to our soul the Tetraktys,

Fount containing the roots of Nature ever-enduring.

And "tetraktys" was the name given by them to the number ten, it being composed of the first four

^a e.g. Philolaüs and Archytas.

^b Cf. *Adv. Log.* i. 94, 109.

^c Cf. *Adv. Log.* i. 94.

θμός. ἐν γὰρ καὶ δύο καὶ τρία καὶ τέσσαρα δέκα γίνεται· ὅς ἐστι τελειότατος ἀριθμός, ἐπεὶ ἐπ' αὐτὸν φθάσαντες πάλιν ἀναλύομεν ἐπὶ τὴν μονάδα καὶ ἐξ ὑπαρχῆς ποιούμεθα τὰς ἀριθμήσεις. πηγὴν τ' ἀενάου φύσεως ῥιζώματ' ἔχουσαν εἰρήκασιν αὐτὸν διὰ τὸ κατ' αὐτοὺς ἐν αὐτῷ τὸν λόγον τῆς ἀπάντων κείσθαι συστάσεως, ὅλον εὐθέως τοῦ τε σώματος καὶ τῆς ψυχῆς· ἀπαρκέσει γὰρ τούτων
 4 ὑποδειγματικῶς μεμνήσθαι. ἡ μὲν οὖν μονὰς ἀρχὴ τις ὑπόκειται τῆς τῶν ἄλλων ἀριθμῶν ἀπεργαστικῆ συστάσεως, ἡ δὲ δυὰς μήκους ἐστὶν ἀπεργαστικῆ. καθάπερ γὰρ ἐπὶ τῶν γεωμετρικῶν ἀρχῶν ὑπεδείξαμεν πρῶτον τίς ἐστὶν ἡ στιγμὴ, εἶτα μετ' αὐτὴν ἡ γραμμὴ μήκος ἀπλατὲς τυγχάνουσα, τὸν αὐτὸν τρόπον καὶ ἐπὶ τοῦ παρόντος ἡ μὲν μονὰς τὸν τῆς στιγμῆς ἐπέχει λόγον, ἡ δὲ δυὰς τὸν τῆς γραμμῆς καὶ τοῦ μήκους· ποθὲν γὰρ ποι¹ ἐχώρησεν ἡ διάνοια ταύτην ἐννοουμένη, τοῦτο
 5 δ' ἦν μήκος. ἡ δὲ τριάς ἐπὶ τοῦ πλάτους καὶ τῆς ἐπιφανείας ἐτέτακτο· ποθὲν γὰρ ποι¹ (καὶ πάλιν ποι)² ἐφέρετο ὁ νοῦς, καὶ προστιθεμένης τῇ κατὰ μήκος διαστάσει τῆς κατὰ πλάτος διαστάσεως ἐπιφάνεια νοεῖται. ἀλλὰ κἄν ἐπιθεωρήσῃ τις τῇ τριάδι τετάρτην μονάδα, τουτέστι τέταρτον σημείον, γίνεται πυραμὶς, στερεὸν σῶμα καὶ σχῆμα· καὶ γὰρ μήκος ἔχει καὶ πλάτος καὶ βάθος· ὥστε ἐν τῷ τέσσαρα ἀριθμῷ τὸν τοῦ σώματος περιέχε-
 6 σθαι λόγον. καὶ μὴν καὶ τὸν τῆς ψυχῆς· ὡς γὰρ τὸν ὅλον κόσμον κατὰ ἀρμονίαν λέγουσι διοικεῖσθαι, οὕτω καὶ τὸ ζῶον ψυχοῦσθαι. δοκεῖ δὲ ἡ

¹ ποι scripsi : ποῦ MSS., Bekk.

² (καὶ πάλιν ποι) addidi : (κ. π. ποῦ) add. cj. Bekk.

numbers. For one and two and three and four make up ten ; and this is the most perfect number, since, when we have reached it, we revert again to the one and make our numerations afresh. And they have called it the "fount containing the roots of Nature ever-enduring" because, according to them, the reason of the structure of all things resides in it, as for instance that of the body and the soul^a ; for it will suffice to mention these by way of example. Now⁴ the monad (or one) is an underlying principle which produces the structure of all the other numbers, and the dyad (or two) is productive of length. For as in the case of the geometrical principles we explained^b first what the point is, and next, after it, the line which is length without breadth, similarly, in the case before us, the monad corresponds to the point and the dyad to the line and length ; for thought in conceiving this moves from some place to some place, and this is length. And the triad (or three) is set⁵ over breadth and the plane ; for the mind has moved from here to there (and on again to some other place), and when the distance in breadth is added to the distance in length the plane is conceived. But if, in addition to the triad one imagines a fourth monad, that is, a fourth sign, the pyramid is formed, a solid body and figure ; for it possesses length and breadth and depth ; so that the formula of the body is comprised in the number four. And so also is that⁹ of the soul ; for they declare that as the whole Universe is governed according to harmony, so too the living creature is ensouled. And the perfect

^a Cf. *Adr. Log.* i. 99 ff.

^b Cf. *Adv. Geom.* 19 ff.

τέλειος ἁρμονία ἐν τρισὶ συμφωνίαις λαμβάνειν τὴν ὑπόστασιν, τῇ τε διὰ τεττάρων καὶ τῇ διὰ πέντε καὶ τῇ διὰ πασῶν. ἡ μὲν οὖν διὰ τεσσάρων ἐν ἐπιτρίτῳ κείται λόγῳ, ἡ δὲ διὰ πέντε ἐν ἡμιόλιῳ, ἡ δὲ διὰ πασῶν ἐν διπλασίῳ. ἐπίτριτος δὲ λέγεται ἀριθμὸς ὁ ἐξ ὄλου τινὸς ἀριθμοῦ συνεστηκὸς καὶ ἐκ τοῦ τρίτου μέρους ἐκείνου, ὡς ἔχει ὁ ὀκτώ πρὸς τὸν ἕξ· καὶ γὰρ αὐτὸν τὸν ἕξ περιέσχηκε καὶ τὸ τρίτον αὐτοῦ, τουτέστι τὴν δυάδα. ἡμιόλιος δὲ καλεῖται, ὅταν περιέχη ἀριθμὸς ἀριθμὸν καὶ τὸ ἡμισυ ἐκείνου, ὡς ἔχει ὁ ἐννέα πρὸς τὸν ἕξ· συνέστηκε γὰρ ἐκ τοῦ ἕξ καὶ ἐκ τοῦ ἡμίσεος αὐτοῦ, τουτέστι τῶν τριῶν, διπλασίῳ δὲ προσαγορεύεται ὁ δυσὶν ἀριθμοῖς ἴσος,¹ ὡς ὁ τέσσαρα πρὸς τὸν δύο· δις γὰρ τὸν αὐτὸν περιέσχηκεν. ἀλλὰ γὰρ τούτων οὕτως ἐχόντων, καὶ κατὰ τὴν ἀρχῆθεν ὑπόθεσιν τεσσάρων ὄντων ἀριθμῶν, τοῦ τε ἐνὸς καὶ δύο καὶ τρία καὶ τέσσαρα, ἐν οἷς ἐλέγομεν καὶ τὴν τῆς ψυχῆς ἰδέαν περιέχεσθαι κατὰ τὸν ἐναρμόνιον λόγον, ὁ μὲν τέσσαρα τοῦ δύο καὶ ὁ δύο τῆς μονάδος ἐστὶ διπλασίῳ, ἐν ᾧ ἔκειτο ἡ διὰ πασῶν συμφωνία, ὁ δὲ τρία τοῦ δύο ἡμιόλιος (καὶ γὰρ αὐτὸν τὸν δύο περιέσχηκε καὶ τὸ ἡμισυ τούτου, ὅθεν ἡ τὴν διὰ πέντε συμφωνίαν ὑπέβαλλεν), ὁ δὲ τέσσαρα τοῦ τρία ἐπίτριτος, ὑπέκειτο δὲ καὶ ἐν τούτῳ ἡ διὰ τεσσάρων συμφωνία. ὥστε εἰκότως τὸν τέσσαρα ἀριθμὸν παρὰ τοῖς Πυθαγορικοῖς εἰρησθαι πηγῆν ἀεναίου φύσεως ριζώματ' ἔχουσαν.

10 Ἄλλ' ὅτι μὲν πολλὴν δύναμιν ἀπένεμον τοῖς ἀριθμοῖς, ἐκ τούτων συμφανὲς ὑποδειγματικώτερον εἰρημένων· πολὺς γὰρ ὁ περὶ ἀριθμῶν παρ'

¹ fortasse (ἴσος) ἴσος.

harmony is held to consist in three symphonies^a—that of the “By-Fours” and that of the “By-Fives” and that of the “By-Alls.” Now the “By-Fours” symphony consists of the “epitrite” (4:3 ratio), and that of the “By-Fives” in the ratio 3:2, and the “By-Alls” in the ratio 2:1. The number called “epitrite” is that composed of a certain number taken as a whole *plus* its third part—which is the ratio of eight to six; for the eight includes the six *plus* the third part of it, that is the dyad. And a number is said to be in the ratio 3:2 when the number includes a number *plus* its half,—the relation of nine to six; for the nine is composed of the six *plus* its half, that is, three. And that called “double” is that which is equal to two (equal) numbers,—the relation of four to two; for it includes the same number twice. Such, then, being the facts, and there being, according to the original assumption, four numbers—one, two, three and four—in which is included, as we said, the form of the soul according to the harmonical formula, the four is double the two and the two double the monad, and therein consists the “By-Alls” symphony; and the three is to the two in the 3:2 ratio (for it includes the two itself *plus* its half, and thus it supplies the “By-Fives” symphony); and the four is to the three in the “epitrite”⁹ or 4:3 ratio, on which is based the “By-Fours” symphony. So that naturally the number four is called by the Pythagoreans the “fount containing the roots of Nature ever-enduring.”

From what has been said by way of brief illustration¹⁰ it is clear that they ascribed much power to numbers; for the account they give of numbers is voluminous,

^a Cf. P.H. iii. 155; Adv. Log. i. 95 ff.

αὐτοῖς ἐστὶ λόγος, ὃν εἴσαντες τὰ νῦν μηκύνειν ἀπτόμεθα τῆς ἀντιρρήσεως, τὴν ἀρχὴν τῶν λόγων ἀπὸ μονάδος ποιησάμενοι, ἧτις ἀρχὴ παντός ἀριθμοῦ καθέστηκε καὶ ἧς ἀναιρουμένης οὐδ' ἔστιν ἀριθμός.

- 11 Τὴν τοῦ ἐνός τοίνυν νόησιν διατυπῶν ἡμῖν πυθαγορικώτερον ὁ Πλάτων φησὶν “ ἐν ἔστιν οὐ μὴδὲν χωρὶς λέγεται ἐν ” ἢ “ οὐ μετοχῆ ἕκαστον ἐν τε καὶ πολλὰ λέγεται.” τὸ γὰρ φυτόν, εἰ τύχοι, καὶ τὸ ζῶον καὶ ὁ λίθος παραγορεύεται μὲν ἐν, οὐκ ἔστι δὲ κατὰ τὸν ἴδιον λόγον ἐν, ἀλλ' ἐν¹ μετοχῆ ἐνός νοεῖται, τούτου μὴδενός τούτων καθεστῶτος.
- 12 οὔτε γὰρ φυτόν οὔτε ζῶον οὔτε λίθος οὔτε ἄλλο τι τῶν ἀριθμητῶν τὸ ὄντως ἐν ἔστιν. εἰ γὰρ φυτόν ἔστιν ἢ ζῶον τὸ ἐν, πάντως ὁ μὴ φυτόν ἔστι μὴδὲ ζῶον οὐ ῥηθήσεται ἐν. λέγεται δὲ καὶ φυτόν ἐν καὶ ζῶον καὶ ἄλλα μυρία· οὐδὲν ἄρα τῶν
- 13 ἀριθμητῶν ἐστὶ τὸ ἐν. τὸ δὲ οὐ ἕκαστον, ἐν μὲν καθ' ἑαυτὸ ἕκαστον πολλὰ δὲ ἀθροισμῶ, μετέχον, ἐν τε καὶ πολλὰ γίνεται τῶν καθ' ἕκαστον. ὅπερ πάλιν πλήθος οὐδὲν ἔστι τῶν πολλῶν, οἷον φυτῶν ζῴων λίθων· κατὰ μετοχὴν μὲν γὰρ ἐκείνου ταῦτα λέγεται πολλὰ, αὐτὸ δὲ οὐκ ἔστιν ἐν τούτοις.
- 14 πλὴν τοιαύτη μὲν ἢ τοῦ ἐνός ἰδέα νοεῖται τοῖς περὶ τὸν Πλάτωνα ἐπισυνάπτοντες δὲ ἡμεῖς λέγωμεν. ἦτοι ἕτερα τῶν κατὰ μέρος ἀριθμητῶν² ἐστὶν ἢ τοῦ ἐνός ἰδέα, ἢ σὺν ἐκείνοις τοῖς μετέχουσιν αὐτῆς νοεῖται. ἀλλὰ καθ' αὐτὴν μὲν <οὐχ ὑφέστηκεν, εἶγε>³ παρὰ τὰ κατὰ μέρος ἀριθμητὰ οὐδὲν νοεῖται

¹ ἐν Heintz : ἐν mss., Bekk.

² ἀριθμητῶν Heintz : ἀριθμῶν mss., Bekk.

³ <οὐχ ὑφέστηκεν, εἶγε> add. cj. Bekk.

but forbearing for the present to dwell on it, let us take up the confutation, beginning our argument with the monad, which is the principle of all number and with the destruction of which number ceases to exist.

Now Plato, in formulating in rather Pythagorean¹¹ fashion the concept of the one, declares that “ One is that without which nothing is termed one,” or “ by participation in which each thing is termed one or many.” For the plant, let us say, or the animal, or the stone is called one, yet is not one according to its own proper description, but is conceived as one by participation in the One, none of them being actually the One. For neither plant nor animal nor stone nor¹² any other numerable object is the essential One. For if a plant or an animal is the One, what is not a plant or an animal will certainly not be termed one^a; but a plant is termed one, as is an animal and countless other things; therefore none of the numerables is the One. But that by participation in which each¹³ thing is by itself each one thing, and a plurality by aggregation, is the One and Many of the individual things. But this Plurality, again, is none of the many things, such as plants, animals, stones; for it is by participation in it that these things are termed “ many,” but the Plurality itself is not one of them.— Such, then, is the Idea of the One as conceived by¹⁴ Plato; so let us subjoin our argument. Either the Idea of the One is different from the particular numerables, or it is conceived along with those things which participate in it. But it does not subsist by itself, since no One other than the particular numer-

^a Cf. P.H. iii. 156 ff.

ἐν ὑποκείμενον. λείπεται ἄρα ἐν ἐκείνοις τοῖς μετ-
 15 ἔχουσιν αὐτοῦ νοεῖσθαι, ὁ πάλιν τῶν ἀπόρων. τὸ
 γὰρ ἀριθμητὸν ξύλον εἰ μετοχῇ μονάδος ἔστιν ἐν,
 ὁ μὴ ἔστι ξύλον οὐ λεχθήσεται ἐν· λέγεται δέ γε,
 ὡς ἀνώτερον ὑποδέδεικται· οὐκ ἄρα ἔστιν ἡ μονὰς
 ἧς μετοχῇ ἕκαστον τῶν κατὰ μέρος ἀριθμητῶν
 16 μονὰς προσαγορεύεται. εἶτα τὸ πολλοῖς μετεχό-
 μενον πολλά ἔστι καὶ οὐχ ἐν, τὰ δὲ ἀριθμητὰ
 πολλά τέ ἐστι καὶ ἀπειρα· οὐκ ἄρα μετοχῇ τῆς
 17 μονάδος ἕκαστον τῶν ἀριθμητῶν ἐν ἔστιν. ὡσπερ
 οὖν ὁ γενικός ἀνθρωπος, ὃν τινες νοοῦσι ζῶον
 θνητόν, οὔτε Σωκράτης ἔστιν οὔτε Πλάτων, ἐπειδὴ
 οὐδεὶς λεχθήσεται ἀνθρωπος,¹ οὔτε καθ' ἑαυτὸν
 ὑφέστηκεν οὔτε μετὰ Πλάτωνος καὶ Σωκράτους,
 ἐπεὶ ἐθεωρεῖτο ἂν ὡς ἀνθρωπος, οὕτω καὶ τὸ ἐν
 μῆτε σὺν τοῖς κατὰ μέρος ἀριθμητοῖς μῆτε καθ'
 ἑαυτὸ ὑφεστηκός νοούμενον εὐθέως ἔστιν ἀνεπι-
 18 νόητον. τὰ δὲ αὐτὰ λεκτέον καὶ ἐπὶ τοῦ δύο ἢ
 καὶ τρία καὶ καθόλου ἐπὶ παντός ἀριθμοῦ, ἵνα μὴ
 μηκύνωμεν. ἔνεστι δὲ καὶ οὕτως συνερωτῶν. ἡ
 τοῦ ἐνὸς ἰδέα, ἧς μετοχῇ τι ἐν λέγεται, ἦτοι μία
 ἔστιν ἰδέα ἢ τοῦ ἐνὸς πλείους ἰδέαι τυγχάνουσιν.
 ἀλλ' εἰ μὲν μία ἔστιν, οὐ πολλοῖς μετέχεται· τοῦ
 γὰρ A, εὐσήμου χάριν διδασκαλίας, τὴν ὅλην τοῦ
 ἐνὸς ἰδέαν ἔχοντος, τὸ B μὴ μετέχον ταύτης οὐκέτ'
 19 ἔσται ἐν. καὶ μὴν οὐδὲ πολυμερῆς καθέστηκεν,
 ἵνα πολλά ἢ τὰ μετέχοντα ταύτης· πρῶτον μὲν
 γὰρ ἔσται ἕκαστον οὐ τῆς τοῦ ἐνὸς ἰδέας μετέχον,
 μέρους δὲ αὐτῆς, εἶτα καὶ ἡ μονὰς ἀδιαίρετος καὶ

¹ (ἄλλος) add. cj. Warmington.

* Cf. the "generic Line" of *Adv. Geom.* 92.

² For this definition cf. *P.H.* ii. 26.

ables is conceived as subsisting.—It remains, then,
 to say that it is conceived as included in those things
 which partake of it, which, again, is dubious. For 15
 if the numerable log is one by participation in the
 Monad, what is not a log will not be termed one ;
 but, as has been shown above, it is so termed ; there-
 fore the Monad, by participation in which each
 of the particular numerables is called a monad, does
 not exist.—Further, that in which many participate 16
 is Many and not One, and the numerables are both
 many and infinite ; each of the numerables, there-
 fore, is not one by participation in the Monad. So, 17
 just as the generic Man^a—whom some conceive as
 " a mortal animal "^b—is not Socrates or Plato (for, if
 so, nobody else will be termed man), and does not
 subsist of himself nor together with Plato and Socrates
 (for then he would have been observed as a man), so
 likewise the One, not being conceived either as sub-
 sisting by itself or along with the particular numer-
 ables, is *ipso facto* inconceivable. And the same must 18
 be said of the Two and the Three, and in general—
 not to make a long story of it—of every number.
 —One may also propound the following argument :
 The Idea of the One, by participation in which a
 thing is termed one, either is one Idea, or there are
 several Ideas of the One.^c But if it is one, many do
 not participate in it ; for (to explain the point clearly)
 if A possesses the whole of the Idea of the One, B,
 which does not participate in it, will no longer be one.
 —Nor yet is it multipartite, so that the things par- 19
 ticipating in it might be many ; for, firstly, each thing
 will be participating not in the Idea of the One but
 in a part of it ; and secondly, the Monad, according

^c Cf. *P.H.* iii. 158 ff.

ἀμερῆς ἐνοεῖτο καθ' αὐτούς. εἰ δὲ πλείους εἰσὶν ἰδέαι τοῦ ἐνός, ἕκαστον τῶν καθ' ἓν τασσομένων ἀριθμητῶν, ἦτοι τοῦ ἐνός ἢ τοῦ δύο, καθ' ἓν ἐκάτερον, μετέχει τινὸς κοινῆς ἰδέας ἢ οὐ μετέχει. 20 καὶ εἰ μὲν οὐ μετέχει, δεήσει καὶ ἅπαντα δίχα τοῦ μετέχοντος ἰδέας κατὰ τὸ ἐν τετάχθαι, ὅπερ οὐ θέλουσιν. εἰ δὲ μετέχει, ἢ ἐξ ἀρχῆς συναχθήσεται ἀπορία· πῶς γὰρ μᾶς τὰ δύο μεθέξει;

Ταῦτα μὲν οὖν περὶ μονάδος, ἧς ἀνηρημένης πᾶς 21 ἀνήρηται ὁ ἀριθμὸς· ὁμῶς δ' οὖν ἐπισυνάπτωμεν καὶ τὰ περὶ τῆς δυάδος. ἀπόρως γὰρ πως καὶ αὕτη¹ συνίσταται κατὰ τὴν τῶν μονάδων σύνοδον, ὡσπερ καὶ Πλάτων διὰ τοῦ περὶ ψυχῆς πρότερον ἠπόρηκεν. παρατεθείσης γὰρ μονάδος ἑτέρα μονάδι ἦτοι προσγίνεται τι κατὰ τὴν παράθεσιν ἢ ἀπογίνεται ἢ 22 οὔτε προσγίνεται τι οὔτε ἀπογίνεται. ἀλλ' εἰ μὲν οὔτε προσγίνεται τι οὔτε ἀπογίνεται, οὐκ ἔσται κατὰ παράθεσιν τῆς ἑτέρας μονάδος τῇ ἑτέρα ἢ δυάς. εἰ δὲ ἀπογίνεται τι κατὰ τὴν παράθεσιν, ἐλάττωσις ἔσται τοῦ ἐνός καὶ ἐνός, καὶ δυὰς οὐ γενήσεται. εἰ δὲ προσγίνεται τι, τὰ δύο οὐ γενήσεται δύο ἀλλὰ τέσσαρα· δυὰς γὰρ ἢ ἐπιγνωμένη καὶ μονὰς καὶ ἑτέρα μονὰς τὸν τῶν τεσσάρων ἀριθμὸν συνίστησιν. οὐδὲν ἄρα ἔσται δυάς. ἢ δὲ αὕτη γένοιτ' ἂν ἀπορία καὶ ἐπὶ παντὸς ἀριθμοῦ, ὥστε μηδὲν εἶναι κατὰ τοῦτο ἀριθμὸν.

23 Οὐ μὴν ἀλλ' ἐπεὶ κατὰ πρόσθεσιν μονάδος καὶ κατὰ ἀφαίρεσιν ὁ ἀριθμὸς νοεῖται, δηλον ὡς ἐὰν τούτων ἐκάτερον παραστήσωμεν ἀδύνατον, οἰχθή-

¹ ἀπόρως . . . αὕτη scripsi: ἀπορος . . . αὕτη MSS., Bekk.

to them, is conceived as indivisible and without parts. And if there are several Ideas of the One, each of the numerables ranked as unities (whether it be a one or a two, both taken singly) participates in a certain common Idea, or it does not participate. But if it does not participate, all things, apart from 20 participating in an Idea, will have to be ranked as unities,—a conclusion which they reject. And if they participate, the original difficulty^a will recur; for how will the two participate in one Idea?

So much, then, concerning the monad, and if it is destroyed all number is destroyed; all the same, let 21 us subjoin an attack on the dyad. For it is formed in a doubtful way by the conjunction of the monads, even as Plato formerly expressed doubts about it in his book *On the Soul*.^b For when a monad is set beside another monad, either something is added by the juxtaposition or something is subtracted, or nothing is either added or subtracted. But if nothing 22 is either added or subtracted, the dyad will not exist through the juxtaposition of the one monad with the other. And if something is subtracted through the juxtaposition, there will be a diminution of the one and one, and a dyad will not be formed. And if something is added, the two will become not two but four; for the additional dyad *plus* the monad and the second monad make up the number four. Therefore nothing will be a dyad. And the same difficulty will exist in the case of every number, so that owing to this number is nothing.

Since, however, number is conceived as a result of 23 the addition or subtraction of the monad, it is plain that if we shall establish that each of these two pro-

* Cf. §§ 18, 16.

^b Cf. *Phaedo* 96 E ff.; *Adv. Phys.* ii. 302 ff.

σεται καὶ ἡ τῶν ἀριθμῶν ὑπόστασις. λέγωμεν δὲ
 πρῶτον εὐθὺς περὶ ἀφαιρέσεως, ὑποδειγματικῆ
 24 χρώμενοι τῇ διδασκαλίᾳ. ἡ τοίνυν ἀπὸ τῆς ὑπο-
 κειμένης δεκάδος ἀφαιρουμένη μονὰς ἦτοι ἀπὸ
 ὅλης τῆς δεκάδος ἢ ἀπὸ τῆς περιλειπομένης ἐν-
 νεάδος ἀφαιρεῖται· οὔτε δὲ ἀφ' ὅλης, ὡς παρα-
 στήσομεν, οὔτε ἀπὸ τῆς ἐννεάδος, ὡς διδάξομεν·
 οὐκ ἄρα ἀφαιρεῖται τι ἀπὸ τῆς ὑποκειμένης δε-
 κάδος. εἰ γὰρ ἀφ' ὅλης ταύτης ἀφαιρεῖται ἡ
 μονάς, ἦτοι ἡ δεκάς ἐστὶν ἕτερα τῶν κατὰ μέρος
 μονάδων ἢ ὁ ἀθροισμὸς τούτων δεκάς προσαγο-
 25 ρεῦται. ἀλλ' ἕτερα μὲν τῶν κατὰ μέρος μονάδων
 οὐκ ἐστὶν ἡ δεκάς· καὶ γὰρ ἀναιρεθεισῶν ἐκείνων
 οὐδ' ἐστὶ δεκάς, καὶ τῆς δεκάδος ἀναιρεθείσης
 ὁμοίως αἱ μονάδες οὐκέτι ὑπάρχουσιν. εἰ δὲ ἡ
 αὐτὴ ταῖς μονάσιν ἐστὶν ἡ δεκάς, τουτέστιν εἰ αἱ
 κατὰ μέρος μονάδες εἰσὶ δεκάς, δῆλον ὡς εἶπερ
 ἀπὸ τῆς δεκάδος ἢ τῆς μονάδος ἀφαίρεσις γίνεται,
 ἀφ' ἐκάστης μονάδος ἀφαιρεθήσεται (αἱ γὰρ κατὰ
 μέρος μονάδες ἦσαν ἡ δεκάς), καὶ οὕτως οὐκέτι
 26 ἔσται μονάδος ἄρισ ἀλλὰ δεκάδος. ὥστε οὐκ ἀπὸ
 ὅλης τῆς δεκάδος αἶρεται ἡ μονάς. καὶ μὴν οὐδ'
 ἀπὸ τῆς ὑπολειπομένης ἐννεάδος ἢ ἄρισ αὐτῆς
 γίνεται· πῶς γὰρ ἔτι μετὰ τὴν ἄρισ αὐτῆς σώος
 ἐστὶν ἡ ὑποκειμένη ἐννεάς; ἀλλ' εἰ μῆτε ἀφ' ὅλης
 τῆς δεκάδος αἶρεται ἡ μονάς μῆτε ἀπὸ τῆς ὑπο-
 λειπομένης ἐννεάδος, οὐδεὶς ἀριθμὸς κατὰ ἀφαίρεσιν
 27 συνίσταται. ἄλλως τε, εἰ ἀπὸ τῆς ἐννεάδος αἶρεται
 ἡ μονάς, ἦτοι ἀπὸ ὅλης αἶρεται ἡ ἀπὸ τῆς τελευ-
 ταιᾶς αὐτῆς μονάδος. καὶ εἰ μὲν ἀπὸ ὅλης τῆς
 ἐννεάδος ἀφαιρεῖται ἡ μονάς, ἔσται ἄρισ τῆς ἐν-
 νεάδος· τὸ γὰρ ἀφαιρούμενον ἀφ' ἐκάστης μονάδος,

cesses is impossible, the reality of number, too, will
 be abolished. Let us, for instance, deal first with
 subtraction, using the method of demonstration by
 examples. The monad, then, which is being sub- 24
 tracted from the decad assumed is subtracted either
 from the whole decad or from the nine left over ^a ;
 but it is not subtracted from the whole, as we shall
 establish, nor from the nine, as we shall demonstrate ;
 nothing, therefore, is subtracted from the decad
 assumed. For if the monad is subtracted from this
 as a whole, either the decad is other than the par-
 ticular monads or the aggregate of these is termed a
 decad. But the decad is not other than the particular 25
 monads ; for if these are destroyed the decad does
 not exist, and similarly if the decad is destroyed the
 monads no longer exist. And if the decad is the
 same as the monads,—that is to say, if the particular
 monads are the decad,—it is plain that if the sub-
 traction of the monad is from the decad, it will be
 subtracted from each monad (for the particular
 monads are the decad), and thus it will no longer be
 a subtraction of the monad but of the decad. Conse-
 quently, the monad is not subtracted from the whole
 decad. Nor, indeed, is it subtracted from the nine 26
 left over ; for how will the assumed nine be still
 preserved after the subtraction ? But if the monad
 is not subtracted either from the decad as a whole or
 from the nine left over, no number subsists through
 subtraction.—Besides, if the monad is subtracted 27
 from the nine, it is subtracted either from the whole
 or from its last monad. But if the monad is sub-
 tracted from the whole nine, there will be a subtrac-
 tion of the nine ; for that which is subtracted from

^a Cf. *P.H.* iii. 88 ff. ; *Adv. Phys.* i. 312 ff.

τῶν κατὰ μέρος μονάδων ἐννέα οὐσῶν, τὸν τῆς
 28 ἐννεάδος ἀριθμὸν συντίθησιν. εἰ δὲ ἀπὸ τῆς τελευ-
 ταιᾶς μονάδος γίνεται τὰ τῆς ἀφαιρέσεως, πρῶτον
 μὲν καὶ ἡ τελευταία μονάς, ἀμερῆς οὐσα, δειχθή-
 σεται περισσότερῶς τυγχάνειν, ὅπερ ἄτοπον· εἴτα εἰ ἀπὸ
 τῆς τελευταίας μονάδος αἴρεται ἡ μονάς, οὐ δυνή-
 29 σεται εἶτις ὀλόκληρος μένειν ἢ ἐννεάς. καὶ ἄλλως,
 εἴπερ ἀπὸ τῆς δεκάδος γίνεται ἡ τῆς μονάδος
 ἄρσις, ἥτοι ἀπὸ οὐσης γίνεται τῆς δεκάδος [ἄρσις]
 ἢ ἀπὸ μὴ οὐσης· οὔτε δὲ ἀπὸ τῆς οὐσης γένοιτ'
 ἂν (ἐφ' ὅσον γὰρ μένει χρόνον δεκάς, οὐδὲν ἀπ'
 αὐτῆς ἀφαιρεθῆναι δύναται ὡς δεκάδος, ἐπεὶ οὐκ-
 30 τοῦ μὴ ὄντος οὐδὲ ἀρθῆναί τι πέφυκεν· καὶ μὴν
 παρὰ τὸ εἶναι ἢ μὴ εἶναι οὐδὲν ἔστι νοῆσαι· οὐκ
 ἄρα αἴρεται τι ἀπὸ τῆς δεκάδος.

Ἄλλ' ὅτι μὲν ἀμήχανόν ἐστι κατ' ἀφαίρεσιν
 31 ἀριθμὸν τινα νοεῖν, ἐκ τούτων δέδεικται· ὅτι δὲ
 οὐδὲ κατὰ πρόσθεσιν, ῥάδιον δεῖξαι τῶν ἀναλόγων
 ἐχομένους ἀποριῶν. πάλιν γὰρ μονάδος προστιθε-
 μένης δεκάδι ἥτοι τῇ ὅλῃ δεκάδι ῥητέον γίνεσθαι
 τὴν πρόσθεσιν ἢ τῷ τελευταίῳ μέρει τῆς δεκάδος.
 ἄλλ' εἰ μὲν ὅλη τῇ δεκάδι προστίθεται ἡ μονάς,
 ἐπεὶ ἡ ὅλη δεκάς σὺν πάσαις ταῖς κατὰ μέρος
 μονάσι νοεῖται, δεῖξει τὴν τῆς μονάδος πρόσθεσιν
 γινομένην πάσαις ταῖς κατὰ μέρος μονάσι δεκάδος
 32 εἶναι πρόσθεσιν, ὅπερ ἄτοπον· ἀκολουθήσει γὰρ
 τῇ τῆς μονάδος προσθήσει τὴν δεκάδα εἰκοσάδα
 γίνεσθαι, ὃ τῶν ἀμηχάνων ὑπήρχεν. οὐ τοῖνυν
 ὅλη τῇ δεκάδι τὴν μονάδα προστίθεται ῥητέον.
 καὶ μὴν οὐδὲ τῷ τελευταίῳ μέρει τῆς δεκάδος, ἐπεὶ
 οὐκ αὐξήθησεται ἡ δεκάς διὰ τὸ μὴ τὴν τοῦ ἐνός

each monad makes up the number of the nine, as the
 particular monads are nine. And if the subtraction 28
 is from the last monad, then, firstly, the last monad,
 which is indivisible, will be shown to be divisible,
 which is absurd; and secondly, if the monad is sub-
 tracted from the last monad, the nine will no longer
 be able to remain complete.—Further, if the sub- 29
 traction of the monad is from the decad, it is from the
 decad either as existent or as non-existent; but it
 will not be from the existent (for so long as the decad
 remains a decad nothing can be subtracted from it as
 a decad, for if so it will no longer be a decad), nor
 from the non-existent decad; for from what is non- 30
 existent nothing can be subtracted. And of course
 it is impossible to conceive anything other than
 existence and non-existence; therefore nothing is
 subtracted from the decad.

Now by these arguments it has been shown that it
 is not feasible to conceive any number by subtraction;
 and that it is not feasible by addition either is easy to 31
 show by continuing to raise difficulties of a like kind.
 For, again, if the monad is added to the decad, one
 must say that the addition is made either to the whole
 decad or to the last part of the decad. But if the
 monad is added to the whole decad, then, since the
 whole decad is conceived along with all the particular
 monads, the addition which is being made of the
 monad will have to be an addition to all the particu-
 lar monads of the decad, which is absurd; for it will 32
 follow that by the addition of the monad the decad
 becomes twenty, which is a thing impossible. We
 must say, then, that the monad is not added to the
 whole decad. Nor yet to the last part of the decad,
 since the decad will not be increased owing to the

μέρους αὐξήσιν εὐθὺς καὶ τῆς ὅλης δεκάδος αὐξήσιν
 33 εἶναι. [καὶ] καθόλου τε¹ ἐπὶ πᾶσιν, ἢ μενούσῃ τῇ
 δεκάδι προστίθεται ἢ μονὰς ἢ μὴ μενούσῃ. οὐτε
 δὲ μενούσῃ προστεθείη ποτ' ἂν, ἐπεὶ οὐκέτι μένει
 δεκάς, οὐτε μὴ μενούσῃ· τὴν γὰρ ἀρχὴν μὴ με-
 νούσῃ οὐδὲ πρόσθεσις δύναται γενέσθαι.

34 Ἄλλ' εἴπερ ὁ ἀριθμὸς κατὰ πρόσθεσιν, ὡς ἔφην,
 καὶ κατ' ἀφαίρεσιν ὑφιστάμενος νοεῖται, ἐδείξαμεν
 δὲ ἡμεῖς ὅτι οὐθέτερον ἔστι τούτων, ῥητέον μηδὲν
 εἶναι ἀριθμόν. ὅθεν τοσαῦτα καὶ πρὸς γεωμέτρως
 καὶ ἀριθμητικούς ἀπορητικῶς διεξεληθόντες ἀπ'
 ἄλλης ἀρχῆς καὶ τὴν πρὸς τοὺς μαθηματικούς
 ἀντίρρησιν ποιησώμεθα.

¹ καὶ καθόλου τε καὶ cj. Warmington.

fact that the increase of the one part is not *ipso facto*
 an increase of the whole decad.—Generally, too, 33
 and finally, the monad is added to the decad either
 remaining as it is or not remaining. But it will never
 be added to it while it remains, since in that case
 it will no longer remain a decad; nor yet while it
 does not remain, for it is absolutely impossible for
 an addition to be made to it if it does not remain.

But if number is conceived as subsisting through 34
 addition, as I said, and subtraction, and we have
 shown that neither of these exists, one must declare
 that number is nothing. Hence, now that we have
 stated at length all these sceptical arguments against
 the Geometers and Arithmeticians, let us start afresh
 and deliver our attack on the *Mathematici* (or
 "Astrologers").

ΠΡΟΣ ΑΣΤΡΟΛΟΓΟΥΣ

1 Περὶ ἀστρολογίας ἢ μαθηματικῆς πρόκειται
 ζητῆσαι οὔτε τῆς τελείου ἐξ ἀριθμητικῆς καὶ γεω-
 μετρίας συνεστῶσης (ἀντειρήκαμεν γὰρ πρὸς τοὺς
 ἀπὸ τούτων τῶν μαθημάτων) οὔτε τῆς παρὰ τοῖς
 περὶ Εὐδόξον καὶ Ἰππαρχον καὶ τοὺς ὁμοίους
 προρρητικῆς δυνάμεως, ἣν δὴ καὶ ἀστρονομίαν
 2 τινὲς καλοῦσι, (τήρησις γάρ ἐστιν ἐπὶ φαινόμενοις
 ὡς γεωργία καὶ κυβερνητικῆ, ἀφ' ἧς ἔστιν αὐχ-
 μούς τε καὶ ἐπομβρίας λοιμούς τε καὶ σεισμούς
 καὶ ἄλλας τοιουτῶδεις τοῦ περιέχοντος μεταβο-
 λὰς προθεσπίζειν), ἀλλὰ πρὸς γενεθλιαλογίαν, ἣν
 σεμνοτέροις κοσμοῦντες ὀνόμασιν οἱ Χαλδαῖοι μα-
 θηματικούς καὶ ἀστρολόγους σφᾶς αὐτοὺς ἀν-
 αγορεύουσι, ποικίλως μὲν ἐπηρεάζοντες τῷ βίῳ,
 μεγάλην δ' ἡμῖν ἐπιτειχίζοντες δεισιδαιμονίαν,
 μηδὲν δὲ ἐπιτρέποντες κατὰ τὸν ὀρθὸν λόγον
 3 ἐνεργεῖν. καὶ τοῦτ' εἰσόμεθα μικρὸν ἄνωθεν προ-
 λαβόντες περὶ τῶν συντεινόντων πρὸς τὴν ἐπι-
 σκεπτικὴν αὐτῶν μέθοδον. ἔσται δὲ ἐπιδρομικώ-
 τερον καὶ ὀλοσχερέστερον τὸ τῆς ὑφήγησews· τοῖς

AGAINST THE ASTROLOGERS

THE task before us is to inquire concerning astrology 1
 or the "Mathematical Art"—not the complete Art
 as composed of arithmetic and geometry (for we
 have confuted the professors of these subjects); nor
 yet that of prediction practised by Eudoxus and
 Hipparchus* and men of their kind, which some
 also call "astronomy" (for this, like Agriculture and 2
 Navigation, consists in the observation of phenomena,
 from which it is possible to forecast droughts and
 rainstorms and plagues and earthquakes and other
 changes in the surrounding vault of a similar charac-
 ter); it is rather the casting of nativities, which
 the Chaldeans adorn with more high-sounding titles,
 describing themselves as "mathematicians" and
 "astrologers," treating ordinary folk with insolence
 in various ways, building a great bulwark of super-
 stition against us, and allowing us to do nothing
 according to right reason. This we shall understand 3
 after we have first traced back a little the things
 which contribute to their method of speculation; but
 our exposition will be somewhat cursory and sum-

* Eudoxus of Cnidos was a pupil of Plato and Archytas,
circa. 370 B.C., and a famous astronomer, as was also Hipparchus,
 of Nicaea in Bithynia, *circa*. 150 B.C.

γὰρ προηγουμένως μειοῦσι τὸ μάθημα τοῦτο τὰ τῆς ἀκριβείας συγκεχωρήσθω, ἡμῶν δὲ αὐταρκές ἐστι τούτων ἐπιμνησθῆναι ὧν χωρὶς οὐ δυνατόν ἐπιβάλλειν ταῖς πρὸς τοὺς Χαλδαίους ἀντιρρήσεις.

4 Ἐπὶ προϋποκειμένῳ τοίνυν τῷ συμπαιεῖν τὰ ἐπίγεια τοῖς οὐρανίοις καὶ κατὰ τὰς ἐκείνων ἀποροίας ἐκάστοτε ταῦτα νεοχομῶσθαι

(τοῖος γὰρ νόος ἐστὶν ἐπιχθονίων ἀνθρώπων οἷον ἐπ' ἡμαρ ἄγῃσι πατῆρ ἀνδρῶν τε θεῶν τε)

5 οἱ περιεργότερον ἀναβλέψαντες εἰς τὸ περιέχον Χαλδαῖοι δραστικῶν μὲν αἰτιῶν λόγον ἐπέχειν φασὶν εἰς τὸ ἕκαστον τῶν κατὰ τὸν βίον συμβαινόντων ἐκβαίνειν τοὺς ἑπτὰ ἀστέρας, συνεργεῖν δὲ τὰ τοῦ ζωδιακοῦ μέρη. τὸν μὲν οὖν ζωδιακὸν κύκλον, ὥσπερ κατηγήμεθα, διαιροῦσιν εἰς δεκαδύο ζώδια, ἕκαστον δὲ ζώδιον εἰς μοίρας τριάκοντα (ἔστω γὰρ τοῦτο ἐπὶ τοῦ παρόντος σύμφωνον αὐτοῖς), ἕκαστην δὲ μοῖραν εἰς ἑξήκοντα λεπτά· οὕτω

6 γὰρ καλοῦσι τὰ ἐλάχιστα καὶ ἀμερῆ. τῶν δὲ ζωδίων τὰ μὲν τινα ἀρρενικὰ καλοῦσι τὰ δὲ θηλυκά, καὶ τὰ μὲν δίσωμα τὰ δὲ οὐ, καὶ τινὰ μὲν

7 τροπικὰ τινὰ δὲ στερεά. ἀρρενικὰ μὲν οὖν καὶ θηλυκὰ ἅπερ συνεργὸν ἔχει φύσιν πρὸς ἀρρενογονίαν ἢ θηλυγονίαν· κριὸς γὰρ ἀρρενικόν ἐστι ζώδιον, ταῦρος δέ, φασί, θηλυκόν, δίδυμοι ἀρρενικόν, καὶ ἐναλλάξ τὰ λοιπὰ κατὰ τὴν ὁμοίαν ἀναλογίαν,

^a Cf. *Adv. Phys.* I. 79 ff.

^b Cf. *Hom. Od.* xviii. 136 f.; *P.H.* iii. 214.

mary; for the exact details may be left to those who specialize in this branch of study, and it is enough for us to call attention to those points without which it is impossible to set about making our attack on the Chaldeans.

It being previously assumed, then, that things on earth "sympathize" with those in the heavens,^a and that the former are always newly affected by the effluences of the latter

(As is the day brought on by the Sire of gods and of mortals,
So are the thoughts of the hearts of us earth-inhabiting creatures),^b—

on this assumption the Chaldeans, having too curiously gazed up into the surrounding vault, declare that the seven stars^c stand in the relation of efficient causes for the bringing about of everything which occurs in life, and that with them the parts of the zodiac co-operate. Now, as we have been informed, they divide the circle of the zodiac into twelve "zodia" (or "Signs"), and each sign into thirty degrees (let this be near enough to their theories, for the present), and each degree into sixty *lepta* (or "minutes"),—for so they call what is minimal and without parts. And of the Signs some they term masculine, some feminine, and some bi-corporal and some not, and some "tropical" and others fixed. Masculine and feminine are those which possess a nature which aids the birth of males or females; thus the Ram is a masculine Sign, but the Bull, they say, is feminine, the Twins masculine, and the rest alternate in a similar proportion, some masculine, others femi-

^c i.e. Sun, Moon, Mars, Jupiter, Venus, Saturn and Mercury.

- 8 τὰ μὲν ἄρρενικὰ τὰ δὲ θηλυκὰ. ἀφ' ὧν, οἶμαι, καὶ οἱ Πυθαγορικοὶ κινηθέντες τὴν μὲν μονάδα ἄρρεν προσαγορεύουσι, τὴν δὲ δυάδα θῆλυ, τὴν δὲ τριάδα πάλιν ἄρρεν, καὶ ἀναλόγως [πάλιν] τοὺς λοιποὺς τῶν τε ἀρτίων καὶ περιττῶν ἀριθμῶν.
- 9 ἔνιοι δὲ καὶ ἕκαστον ζῴδιον εἰς δωδεκατημέρια διελόντες τῇ αὐτῇ σχεδὸν ἐφόδῳ χρῶνται, οἷον ἐπὶ κριοῦ τὸ μὲν πρῶτον δωδεκατημέριον αὐτοῦ κριόν τε καλοῦσι καὶ ἄρρεν, τὸ δὲ δεύτερον ταῦρον τε καὶ θῆλυ, τὸ δὲ τρίτον διδύμους τε καὶ ἄρρεν· καὶ
- 10 ἐπὶ τῶν ἄλλων μοιρῶν ὁ αὐτὸς λόγος. δίσωμα δὲ λέγουσιν εἶναι ζῴδια διδύμους τε καὶ τὸν διαμετροῦντα τούτοις τοξότην, παρθένον τε καὶ ἰχ-
- 11 θύας, οὐ δίσωμα δὲ τὰ λοιπά. καὶ τροπικὰ μὲν ἐν οἷς γινόμενος ὁ ἥλιος μεταλλάσσει καὶ ποιεῖ τοῦ περιέχοντος τροπᾶς, οἷον ἐστὶ ζῴδιον ὃ τε κριός καὶ τὸ τούτου διάμετρον, καθάπερ ζυγός, αἰγόκερως τε καὶ καρκίνος· ἐν κριῶ μὲν γὰρ ἑαρινὴ γίνεται τροπή, ἐν αἰγοκέρῳ δὲ χειμερινή, ἐν καρκίνῳ δὲ θερινή καὶ ἐν ζυγῶ φθινοπωρινή. στερεὰ δὲ ὑπειλήφασιν ταῦρον τε καὶ τὸ διαμετροῦν, τουτέστι σκορπίον, λέοντα καὶ ὑδροχόον.
- 12 Οὐ μὴν ἀλλὰ καὶ πάντων τούτων τὰ ἐπὶ ἐκάστης γενέσεως κυριεύοντα ζῴδια πρὸς τὴν τῶν ἀποτελεσμάτων ἕκβασιν, καὶ ἀφ' ὧν μάλιστα τὰς προαγορεύσεις ποιοῦνται, τέσσαρά φασι εἶναι τὸν ἀριθμὸν, ἅπερ κοινῶ μὲν ὀνόματι κέντρα καλοῦσιν, ἰδιαιτέρον δὲ τὸ μὲν ὠροσκόπον τὸ δὲ μεσουράνημα τὸ δὲ δύνον τὸ δὲ ὑπόγαιον καὶ ἀντιμεσουράνημα,

nine. And by them, I suppose, the Pythagoreans⁸ were moved to call the monad "male," and the dyad "female," and the triad again "male," and the rest of the even and odd numbers according to the same rule. Some, too, divide each Sign into twelve⁹ parts and use much the same method; as, for instance, in the case of the Ram, the first twelfth part of it they describe as the Ram and male, the second as the Bull and female, the third as the Twins and male; and the same rule holds for the other portions. And they say that the Twins, and the Archer dia-¹⁰ metrically opposite to it, and the Virgin and the Fishes are bi-corporal Signs, but the rest are not bi-corporal. And "tropical" Signs are those which¹¹ when the sun enters it changes its course and produces "tropes" (or "turnings") in the surrounding vault; such a Sign is the Ram and its diametrically opposite, that is the Scales, and Capricorn and the Crab. For the spring "trope" (or "solstice") occurs in the Ram, and the winter one in Capricorn, the summer one in the Crab, and the autumn one in the Scales. But they have assumed that the Bull and the Sign diametrically opposite—that is, Scorpio, Leo and Aquarius—are fixed Signs.

However, of all these Signs those which are¹² dominant at each geniture for the production of effective influences and from which they principally frame their prognostications are, they say, four in number; and to these they give the generic name of "Centres," and more specifically they call them "horoscope," "mid-heaven," "setting," "subterranean," and "anti-mid-heaven," this last being itself

13 δ καὶ αὐτὸ μεσουράνημα ἐστίν. ὠροσκόπος μὲν
 οὖν ἐστὶν ὅπερ ἔτυχεν ἀνίσχειν καθ' ὃν χρόνον ἢ
 γένεσις συνετελείτο, μεσουράνημα δὲ τὸ ἀπ' ἐκεί-
 νου τέταρτον ζώδιον σὺν αὐτῷ ἐκείνῳ, δύνον δὲ τὸ
 διαμετροῦν τῷ ὠροσκόπῳ, ὑπὸ γῆν δὲ καὶ ἀντι-
 μεσουράνημα τὸ διαμετροῦν τῷ μεσουρανήματι,
 οἶον (ἔσται γὰρ σαφὲς ἐπὶ παραδείγματος) καρ-
 κίνου ὠροσκοποῦντος μεσουρανεῖ μὲν κριός, δύνει
 14 δὲ αἰγόκερως, ὑπὸ γῆν δὲ ἐστὶ ζυγός. οὐ μὴν
 ἀλλὰ καὶ ἐκάστου τούτων τῶν κέντρων τὸ μὲν
 προάγον ζώδιον ἀπόκλιμα καλοῦσι, τὸ δὲ ἐπόμενον

also "mid-heaven." * Now the "horoscope" is the 13
 Sign which happens to arise at the time when the
 birth is completed; the "mid-heaven" is the fourth
 Sign therefrom, it being included; the "setting"
 Sign is that diametrically opposite to the "horo-
 scope"; and the "subterranean" or "anti-mid-
 heaven" is that diametrically opposite to the
 "mid-heaven": thus (for an example will make it
 clear), when the Crab is the "horoscope" the Ram
 is the "mid-heaven," and Capricorn is the "setting,"
 and the Scales is the "subterranean." Moreover, 14
 in the case of each of these "Centres" they call the
 preceding Sign "declination" and the following one

* The diagram below, taken from Fabricius, will help to
 explain this passage.

	12 ἐπιαναφορά. ἀργὸν ζώδιον.	1 ὠροσκόπος.	2 ἀπόκλιμα. κακοῦ δαίμονος.	
11 ἀπόκλιμα. θεῆ.				3 ἐπιαναφορά. ζυγὸν δαίμονος.
10 ἀντιμεσου- ρανήμα. υπέραιον.				4 μεσουρανήμα.
9 ἐπιαναφορά. ἀγαθὴ τυχῆ.				5 ἀποκλιμα. κατὰ κριός. μορφοποιρία θ-ος.
	8 ἀντικέντρον καὶ ἄλλοι ἄλλα.	7 ὠροσκόπος.	6 τοῦ ἀντικέν- τρον ἄλλοι ἄλλα.	

15 ἐπαναφοράν. ἤδη δὲ τὸ μὲν προαναφερόμενον τοῦ ὠροσκοποῦντος ζωδίου, ἐν τῷ φανερωῷ ὄν, κακοῦ δαίμονός φασιν εἶναι, τὸ δὲ μετὰ τοῦτο, ἐπόμενον δὲ τῷ μεσουρανοῦντι, ἀγαθοῦ δαίμονος, τὸ δὲ προάγον τοῦ μεσουρανοῦντος κάτω μερίδα καὶ μονομοιρίαν καὶ θεόν, τὸ δὲ ἐρχόμενον ἐπὶ τὴν 16 δύσιν ἀργόν ζώδιον καὶ ἀρχὴν θανάτου, τὸ δὲ μετὰ τὴν δύσιν ἐν τῷ ἀφανεί ποιηὴν καὶ κακὴν τύχην, ὅπερ καὶ διάμετρόν ἐστι τῷ κακῷ δαίμονι, τὸ δὲ ἐρχόμενον ὑπὸ γῆν ἀγαθὴν τύχην, διαμετροῦν τῷ 17 ἀγαθῷ δαίμονι, τὸ δὲ ἀποχωροῦν ἀπὸ τοῦ ἀντιμεσουρανήματος ὡς ἐπ' ἀνατολὴν θεάν, διαμετροῦν τῷ θεῷ, τὸ δὲ ἐπιφερόμενον τῷ ὠροσκόπῳ ἀργόν, ὃ 18 πάλιν διαμετρῆι τῷ ἀργῷ. ἢ ἵνα συντομώτερον φῶμεν, τοῦ ὠροσκοποῦντος ζωδίου τὸ μὲν ἀπόκλιμα καλεῖται κακὸς δαίμων, ἢ δ' ἐπαναφορὰ ἀργόν· ὡσαύτως τοῦ μεσουρανήματος τὸ μὲν ἀπό- 19 κλιμα θεός, ἢ δ' ἐπαναφορὰ ἀγαθὸς δαίμων· κατὰ τὰ αὐτὰ δὲ καὶ τοῦ ἀντιμεσουρανήματος τὸ μὲν ἀπόκλιμα θεά, ἢ δὲ ἐπαναφορὰ ἀγαθὴ τύχη· ὁμοίως τοῦ δύνοντος τὸ μὲν ἀπόκλιμα κακὴ τύχη, 20 ἢ δὲ ἐπαναφορὰ ἀργόν. ταῦτα δ' οἴονται οὐ παρέργως ἐξετάζειν· οὐ γὰρ τὴν αὐτὴν δύναμιν ἔχειν ἡγούνται τοὺς ἀστέρας πρὸς τὸ κακοποιεῖν ἢ μὴ ἐπὶ τε τῶν κέντρων θεωρουμένους καὶ ἐπὶ ταῖς ἀναφοραῖς καὶ τοῖς ἀποκλίμασι, ἀλλ' ὅπου μὲν 21 ἐνεργεστέραν ὅπου δὲ ἀπρακτοτέραν. ἦσαν δὲ

“ascension.” Also they say that that which ascends 15 before the Sign of the horoscope, and is in view, is that of “the evil daemon,” and that after it, which follows the “mid-heaven” Sign, is that of “the good daemon,” and that which precedes the “mid-heaven” sign is “inferior part” and “single portion” and “god,” and that which comes to the “setting” is an “ineffective” Sign and “principle of death,” and that which comes after the “setting” 16 and is out of view is “punishment” and “ill fortune,”—and it is diametrically opposite to the “evil daemon,”—and that which comes to the “subterranean” is “good fortune,” being diametrically opposite to the “good daemon,” and that which 17 comes next after the “anti-mid-heaven,” towards the orient, is “goddess,” being diametrically opposite to the “god,” and that which comes next to the “horoscope” is “ineffective,” and it again is diametrically opposite to the “ineffective.” Or, to 18 speak more concisely, the “declination” of the Sign of the “horoscope” is called the “evil daemon,” and its “ascension” “ineffective”; similarly the declination of the “mid-heaven” is “god,” and its 19 ascension “good daemon”; and in the same way the declination of the “anti-mid-heaven” is “goddess,” and its ascension “good fortune”; likewise the declination of the “setting” is “ill fortune,” and its ascension “ineffective.” And they think 20 that their searching out of these things is no mere by-play; for they believe that the stars have not the same power of doing, or not doing, harm when observed at the “centres” or at their ascensions and declinations, but their power is more effective in one position and less effective in another. And there 21

τινες Χαλδαιῶν οἱ καὶ ἕκαστον μέρος τοῦ ἀνθρω-
 πείου σώματος ἐκάστω τῶν ζωδίων ἀνατιθέτες
 ὡς συμπαθοῦν· κριὸν μὲν γὰρ κεφαλὴν ὀνομά-
 ζουσι, ταῦρον δὲ τράχηλον, διδύμους δὲ ὤμους,
 καρκίνον δὲ στέρον, λέοντα δὲ πλευράς, παρθένον
 22 δὲ γλουτούς, ζυγὸν δὲ λαγόνας, σκορπίον αἰδοῖον
 καὶ μήτραν, τοξότην μηρούς, αἰγόκερων γόνατα,
 ὑδροχόον κνήμας, ἰχθύας δὲ πόδας. καὶ ταῦτα
 πάλιν οὐκ ἀσκόπως, ἀλλ' ἐπέειπερ, ἐὰν ἐν τινι
 τούτων τῶν ζωδίων γένηται τῶν κατὰ τὴν γένεσιν
 κακοποιῶν ἀστέρων τις, πῆρῳσιν τοῦ ὁμωνυμοῦ-
 τος ἀπεργάζεται μέρος.

Ταῦτα μὲν οὖν περὶ τῆς φύσεως τῶν ἐν τῷ ζω-
 23 διακῶ κύκλῳ κεφαλαιωδέστερον ὑποδεδείχθω· οὐκ
 ἄτοπον δὲ ἐξῆς διελθεῖν καὶ περὶ τῆς διαιρέσεως
 αὐτῶν. ἐπιστάσεως γὰρ οὔσης ὡς τῶν ζωδίων
 μὴ κατ' ἰδίαν περιγραφὴν θεωρουμένων ἀλλ' ἐπὶ
 ἀστέρων διεσπαρμένων παρατηρήσει, ἐπῆλθεν αὐ-
 τοῖς εἰς δώδεκα μοίρας τὸν ὅλον καταδιελεῖν κύ-
 24 κλον. ὑποδεικνύντες γὰρ τὴν ἔφοδον φασὶν (ὅτι)¹
 ἕνα τινὰ τῶν ἐν τῷ ζωδιακῶ κύκλῳ λαμπρὸν
 ἀστέρα παρατηρήσαντες ἀνατέλλοντα οἱ πάλαι,
 εἶτα ἀμφορέα τετρημένον πληρώσαντες ὕδατος
 εἶασαν ρεῖν εἰς τι ἕτερον ὑποκείμενον ἀγγεῖον μέχρι
 τοῦ τὸν αὐτὸν (αὐτίς)² ἀνασχεῖν ἀστέρα, στοχασά-
 μενοι τε ἀπὸ τοῦ αὐτοῦ σημείου ἐπὶ τὸ αὐτὸ ση-
 25 μέιον γεγονέναι τὴν τοῦ κύκλου περιστροφὴν πάλιν
 ἐλάμβανον τὸ δωδέκατον τοῦ ρυέντος, καὶ ἐσκέ-
 ποντο ἐν πόσῳ τοῦτο ἔρρευσε χρόνῳ· ἐν τοσοῦτῳ
 γὰρ ἔλεγον καὶ τὸ δωδέκατον μέρος ἀνεληλυθέναι

¹ (ὅτι) add. cj. Bekk.

² (αὐτίς) add. Nebe.

have been some Chaldeans who have referred each part of the human body to one of the Signs as "sym-pathizing" therewith; thus they call the head the Ram, the neck the Bull, the shoulders the Twins, the breast the Crab, the sides the Lion, the buttocks the Virgin, the flanks the Scales, the pudenda and 22 womb the Scorpion, the thighs the Archer, the knees Capricorn, the shins Aquarius, the feet the Fishes.^a And this again is not done at random, but for the reason that if any one of the stars which are maleficent at the time of nativity is in any of these Signs it produces an imperfection in the part which bears the same name.

Let this then serve as a rather summary account of the nature of the things within the circle of the zodiac; and, next, it is not out of place to explain 23 the division of them. Being halted in their observations, because the Signs were not being viewed according to their own proper determinations but by keeping watch on seven dispersed stars, it occurred to them to divide up the whole circle into twelve portions. For 24 in indicating the method of their approach they say that the ancients, after observing the rising of some particular bright star in the circle of the zodiac, proceeded next to fill with water a jar which had holes in it and then let the water flow into another receptacle placed underneath until the same star had arisen again; and as they conjectured that the revolution of the circle was from the same Sign to the same Sign, they next took the twelfth part of the water which had 25 flowed through and calculated how long a time it took in flowing; for that, they said, was the length of time taken in covering the twelfth part of the circle,

^a Cf. Manilius ii. 456 ff., iv. 702 ff.

τοῦ κύκλου, καὶ τοῦτον ἔχειν τὸν λόγον τὸ ἀνεχ-
θὲν μέρος τοῦ κύκλου πρὸς τὸν ὅλον κύκλον, ὃν
ἔχει τὸ ρῦεν τοῦ ὕδατος μέρος πρὸς τὸ ὅλον ὕδωρ.
28 ἐκ ταύτης τῆς ἀναφορᾶς, φημί δὲ τοῦ δωδεκατη-
μορίου, τὸ τελευταῖον πέρως ἐσημειοῦντο ἀπὸ
ἀστέρος τινὸς ἐπιφανοῦς κατ' αὐτὸ θεωρουμένου
ἢ ἀπὸ τινος τῶν συνανατελλόντων βορειοτέρων ἢ
νοτιωτέρων. τὸ δὲ αὐτὸ ἐποίουν καὶ ἐπὶ τῶν
ἄλλων δωδεκατημορίων.

Ἄλλ' ἢ μὲν ἔφοδος καθ' ἣν εἰς τοσαύτας μοίρας
τὸν ζωδιακὸν καταδιαίρουσι κύκλον, ἐστὶ τοιαύτη-
27 ἀνάλογος δ' ἔοικεν εἶναι καὶ καθ' ἣν τὸν ἐφ' ἐκά-
στης γενέσεως ὠροσκόπον ἀρχικῶς παρατηρη-
κέναι λέγουσιν. νύκτωρ μὲν γὰρ ὁ Χαλδαῖος,
φασίν, ἐφ' ὑψηλῆς τινὸς ἀκρωρείας ἐκαθέζετο
ἀστεροσκοπῶν, ἕτερος δὲ παρήδρευε τῇ ὠδινούσῃ
28 μέχρις ἀποτέξοιτο, ἀποτεκούσης δὲ εὐθὺς δίσκῳ
διεσήμεναι τῷ ἐπὶ τῆς ἀκρωρείας· ὁ δὲ ἀκούσας
καὶ αὐτὸς παρεσημειοῦτο τὸ ἀνίσχον ζώδιον ὡς
ὠροσκοποῦν. μεθ' ἡμέραν δὲ τοῖς ὠροσκοπίοις
προσείχε καὶ ταῖς τοῦ ἡλίου κινήσεσιν.

29 Ἄλλὰ ταῦτα μὲν περὶ ζωδίων· τῶν δὲ ἀστέρων
ἐνίους μὲν ἀγαθοποιούς εἶναι λέγουσιν ἐνίους δὲ
κακοποιούς τινὰς δὲ καὶ κοινούς, ὅσον ἀγαθοποιούς
μὲν τὸν τοῦ Διὸς καὶ τὸν τῆς Ἀφροδίτης, κακο-
ποιούς δὲ τὸν τοῦ Ἄρεως καὶ Κρόνου, ἐπικοινωνοῦν
δὲ τὸν τοῦ Ἑρμοῦ, ἐπεὶ μετὰ μὲν ἀγαθοποιῶν
30 ἀγαθοποιὸς μετὰ δὲ κακοποιῶν κακοποιός. ἄλλοι
δὲ τοὺς αὐτοὺς ἀστέρας κατ' ἄλλην καὶ ἄλλην σχέ-
σιν ὅτε μὲν ἀγαθοποιούς ὅτε δὲ κακοποιούς ὑπάρ-
χουν νομίζουσιν· ἢ γὰρ παρὰ τὸ ζώδιον ἢ παρὰ
τοὺς τῶν ἄλλων ἀστέρων συσχηματισμούς οὔτε ὁ

and the part of the circle covered bears to the whole
circle the same ratio as the part of the water which
has flowed bears to the whole of the water. From 26
this proportion—that of the twelfth part, I mean—
they marked off the final limit from some one con-
spicuous star observed at the time or from one of the
more northerly or southerly stars which rise simul-
taneously. And they did the same in the case of the
other twelfth portions.

Such, then, is the method of approach which led
them to divide the circle of the zodiac into this num-
ber of portions; and analogous to it seems to be the 27
method by which, as they say, they originally came to
observe the horoscope at each nativity. For by night,
they say, the Chaldean sat on a high peak watching
the stars, while another man sat beside the woman in
labour till she should be delivered, and when she 28
had been delivered he signified the fact immediately
to the man on the peak by means of a gong; and
he, when he heard it, noted the rising Sign as that
of the horoscope. But during the day he studied the
horologes (or sun-dials) and the motions of the sun.

So much, then, for the Signs: as to the stars,^a they 29
say that some of them are "beneficent," some
"maleficent," and some "common"; thus Jupiter
and Venus are beneficent, but Mars and Saturn male-
ficent, while Mercury is "common" since it is
beneficent when with beneficent stars, but maleficent
when with maleficent. But others believe that the 30
same stars are at one time beneficent and at another
maleficent according to their varying positions; for
either by reason of the Sign, or by reason of the
configurations of the other stars, the maleficent star

^a i.e. the "seven stars": see p. 325 n.

κακοποιὸς ἀστὴρ πάντως κακοποιὸς ἐστὶν οὔτε
 31 ὁ ἀγαθοποιὸς πάντως ἀγαθοποιὸς ἐστὶν. πλὴν τῶν
 ἑπτὰ ἡγεῖσθαι μὲν τὸν ἥλιον καὶ τὴν σελήνην οἴ-
 ονται, ἐλάττωνα δὲ τούτων δύναμιν ἔχειν πρὸς τὰς
 τῶν ἀποτελεσμάτων ἐκβάσεις τοὺς λοιποὺς πέντε·
 παρ' ἣν αἰτίαν οἱ Αἰγύπτιοι βασιλεῖ μὲν καὶ δεξιῶ
 ὀφθαλμῷ ἀπεικάζουσι τὸν ἥλιον, βασιλεῖα δὲ καὶ
 ἀριστερῷ ὀφθαλμῷ τὴν σελήνην, ῥαβδοφόροις δὲ
 τοὺς πέντε ἀστέρας, τῷ δὲ λοιπῷ λαῷ τοὺς ἄλλους
 32 ἀπλανεῖς. καὶ τῶν πέντε ἡλίω μὲν συμφωνεῖν καὶ
 συνεπικουρεῖν φασὶ Κρόνον τε καὶ Δία καὶ Ἑρμῆν,
 οὓς καὶ ἡμερινοὺς καλεῖσθαι διὰ τὸ τὸν ἥλιον, ᾧ
 συνεργοῦσι, τῶν μεθ' ἡμέραν γεννωμένων ἐπι-
 κρατεῖν, (σελήνη δὲ Ἄρην τε καὶ Ἀφροδίτην).¹
 33 τοὺς δὲ αὐτοὺς ἀστέρας μείζονα μᾶλλον ἴσχειν
 δύναμιν ἢ παρὰ τὸ ἐν ἰδίῳ οἴκοις ὑπάρχειν ἢ
 ὑψώμασιν ἢ ὀρίοις, ἢ παρὰ τὸ δορυφορεῖσθαι τινας
 ὑπὸ τινων, ἢ παρὰ τὸ ἐπιβλέπειν ἀλλήλους καὶ
 συσχηματίζεσθαι ἀλλήλοις, ἢ παρὰ τὸ ἐπὶ κέντροις
 34 εἶναι. οἶκος δὲ ἐστὶ κατ' αὐτοὺς ἥλιον μὲν λέων,
 σελήνης δὲ καρκίνος, Κρόνου δὲ αἰγόκερως καὶ
 ὑδροχόος, Διὸς τοξότης καὶ ἰχθύες, Ἄρεως κριὸς
 καὶ σκορπιός, Ἀφροδίτης ταῦρος καὶ ζυγός, Ἑρ-
 35 μοῦ δίδυμοι καὶ παρθένος. ὑψώματα δὲ καλοῦσιν
 ἀστέρων, καὶ ταπεινώματα ὠσαύτως, τὰ ἐν οἷς
 χαίρουσιν ἢ ὀλίγην δύναμιν ἔχουσιν· χαίρουσι μὲν
 γὰρ ἐν τοῖς ὑψώμασιν, ὀλίγην δὲ δύναμιν ἔχουσι
 36 ἐν τοῖς ταπεινώμασιν. οἷον ἡλίου μὲν ὑψωμα
 κριός, καὶ πρὸς ἀκρίβειαν ἢ ἔνεακαὶδεκάτη τού-
 του μοῖρα, ταπεινώμα δὲ τὸ διαμετροῦν ζώδιον,

¹ (σελήνη . . . Ἀφροδίτην) add. cj. Bekk.

is not entirely maleficent, nor is the beneficent entirely beneficent. They suppose, however, that the 31 Sun and the Moon are the principal stars of the seven, and that the other five have less power than these for the issues of the "effects"; and for this reason the Egyptians liken the Sun to the king and the right eye, and the Moon to the queen and the left eye, and the five stars to lictors, and the other fixed stars to the rest of the people. And they say that, of the five, Saturn 32 and Jupiter and Mercury are in accord with and join in aiding the Sun, and that these stars are called "diurnal" because the Sun, with which they co-operate, governs those born by day, (and that Mars and Venus aid the Moon). They say also that the same stars 33 have increased power owing to their being in their proper "houses" or "elevations" or "boundaries," or owing to the fact that some are "guarded" by others, or because they "look towards" one another or are in a certain "configuration" one with another, or because they are at the "centres."^a And, according to them, the Lion is the house of 34 the Sun, the Crab of the Moon, Capricorn and Aquarius of Saturn, the Archer and the Fishes of Jupiter, the Ram and the Scorpion of Mars, the Bull and the Scales of Venus, and the Twins and the Virgin of Mercury.—And they term the positions in which 35 the stars rejoice or in which they have little power "elevations" and "depressions" respectively; for they rejoice in their "elevations" but in their "depressions" they possess little power. Thus the Ram is 36 the "elevation" of the Sun (or, to be exact, the nineteenth part of it), and its "depression" is the Sign diametrically opposite; and of the Moon, again, the

^a See §§ 12 ff. (pp. 327 ff.).

σελήνης δὲ πάλιν ὕψωμα μὲν ταῦρος ταπεινώμα
 δὲ τὸ διαμετροῦν, Κρόνου ζυγός, Διὸς καρκίνος,
 Ἄρεως αἰγόκερως, Ἀφροδίτης ἰχθύες, Ἑρμοῦ
 παρθένος. καὶ ταπεινώματα τούτων, ὡς ἔφην, τὰ
 37 διαμετροῦντα τῶν ὑψωμάτων. ὅρια δὲ ἀστέρων
 προσαγορεύουσιν ἐν ἐκάστῳ ζωδίῳ ἐν οἷς ἕκαστος
 τῶν ἀστέρων ἀπὸ ποσῆς μοίρας ἐπὶ ποστὴν μοί-
 ραν πλείστον δύναται· περὶ ὧν οὐχ ἡ τυχοῦσα
 παρ' αὐτοῖς ἐστὶ καὶ κατὰ τοὺς πίνακας διαφωνία.
 38 δορυφορεῖσθαι δὲ ἀστέρας λέγουσιν, ὅταν μέσοι
 ὦσιν ἄλλων ἀστέρων ἐν συνεχείᾳ ζωδίων· οἷον ἐὰν
 τοῦ αὐτοῦ ζωδίου ὅς μὲν τις ἀστήρ τὰς πρώτας
 ἐπέχη μοίρας ὅς δὲ τὰς τελευταίας ὅς δὲ τὰς ἐν
 μέσῳ, δορυφορεῖσθαι λέγεται ὁ ἐν μέσῳ ὑπὸ τῶν
 39 τὰς ἐπ' ἄκροις ἐπεχόντων μοίρας. ἐπιβλέπειν δὲ
 λέγονται ἀλλήλους καὶ συμφωνεῖν ἀλλήλοις ὡς οἱ
 κατὰ τρίγωνον ἢ τετράγωνον φαινόμενοι. κατὰ
 τρίγωνον μὲν οὖν σχηματίζονται καὶ ἐπιθεωροῦσιν
 ἀλλήλους ἀστέρες οἱ [ἐπὶ] τριῶν ζωδίων ἔχοντες
 τὸ μεταξὺ διάστημα, κατὰ τετράγωνον δὲ οἱ δυοῖν.
 40 καὶ δοκεῖ κατὰ μὲν τρίγωνον ἀγαθοποιῶ κακο-
 ποιὸς συσχηματιζόμενος εὐεργετικὸς εἶναι καὶ πολὺ
 μᾶλλον ἀγαθοποιός, ἀγαθοποιῶ δὲ ἥπιος αὐτὸ μόνον,
 καὶ κακοποιὸς κακοποιῶ, κατὰ δὲ τετράγωνον
 ἀνάπαλιν. ἐπίκεντροι δὲ λέγονται οἱ ἐπὶ τινος τῶν
 κέντρων θεωρούμενοι, ἧτοι ἐπὶ τοῦ ὠροσκόπου ἢ
 τοῦ μεσουρανήματος ἢ δύσεως ἢ ἀντιμεσουρανή-
 ματος.

“elevation” is the Bull and the “depression” the Sign diametrically opposite; and the elevation of Saturn is the Scales, of Jupiter the Crab, of Mars Capricorn, of Venus the Fishes, of Mercury the Virgin. And the depressions of these, as I said, are the Signs diametrically opposite the elevations. And the 37 “boundaries” of the stars, as they call them, in each Sign are those within which, from a certain portion to a certain portion, they possess most power; and about these there is no little disagreement amongst them and in their tablets too. And they say that the 38 stars are “guarded” when they are in the middle of other stars and in continuity with the Signs; thus if in the same Sign one star occupies the first portions and another the last and another the midmost, then the star in the middle is said to be “guarded” by those occupying the extreme portions. And they 39 are said to “look towards” one another and to “agree with” one another, as in the case of those which appear in a triangular or quadrangular figure. Now the stars which occupy the middle interval of three Signs form a triangular figure and look towards one another, and those between two Signs form a quadrangular figure. And it is thought that when 40 a maleficent star is in opposition to a beneficent in a triangular figure it is “well-disposed” and much more beneficent, and that a kindly in opposition to a beneficent is just “kindly,” and so with a maleficent in opposition to a maleficent; but the reverse is the case when the figure is quadrangular. And they are called “epicentric” when they are observed at one of the “centres,” either at the “horoscope,” or at the “mid-heaven,” or at the “setting,” or at the “anti-mid-heaven.”

41 Ἀλλὰ γὰρ τούτων οὕτως ἡμῖν ὡς ἐν τύπῳ καὶ
 ὀλοσχερῶς ἐκκειμένων προληπτέον ὡς ἀπ' αὐτῶν
 ὀρμηθέντες οἱ Χαλδαῖοι τὰς προαγορεύσεις ποιοῦν-
 ται τῶν ἀποτελεσμάτων. διαφορὰ δὲ ἔστιν αὐ-
 τῶν, ἐπεὶ τὰ μὲν ἀπλούστερα καθειστήκει τὰ δὲ
 ἀκριβέστερα, καὶ ἀπλούστερα μὲν τὰ κατὰ ζῳδίου
 ἢ ἀπλὴν ἀστέρος δύναμιν γινόμενα, οἷον ὅτι ὄδε ὁ
 ἀστὴρ ἐν τῷδε τῷ ζῳδίῳ γενόμενος τοιοῦτους
 42 ποιεῖ, ἀκριβέστερα δὲ τὰ κατὰ συνδρομὴν καὶ ὡς
 αὐτοὶ λέγουσι τὰ κατὰ σύγκρασιν πλειόνων, οἷον
 "ἐὰν ὄδε μὲν ὠροσκοπῇ ὄδε δὲ μεσουρανή ὄδε
 δὲ ἀντιμεσουρανή οἱ δὲ ἄλλοι οὕτως ἔχωσι, συμ-
 βήσεται τάδε."
 43 Ὁ μὲν οὖν χαρακτήρ τῆς Χαλδαϊκῆς μεθόδου
 τοιοῦτος ἔοικεν εἶναι· ῥάδιον δ' ἔστι λοιπὸν ἐπὶ
 παραδοθέντι τούτῳ συμπεριφέρεσθαι ταῖς κομιζο-
 μέναις ἀντιρρήσεσιν. καὶ δὴ ἔνιοι μὲν ἀγροϊκό-
 τερον πειρῶνται διδάσκειν ὡς οὐ πάντως συμ-
 44 πάσχει τοῖς οὐρανίοις τὰ ἐπίγεια· οὐδὲ γὰρ οὕτως
 ἦνται τὸ περιέχον ὡς τὸ ἀνθρώπινον σῶμα, ἵνα
 ὄν τρόπον τῇ κεφαλῇ τὰ ὑποκείμενα μέρη συμ-
 πάσχει καὶ τοῖς ὑποκειμένοις ἢ κεφαλῇ, οὕτω καὶ
 τοῖς ἐπουρανίοις τὰ ἐπίγεια, ἀλλὰ τις ἔστι τούτων
 διαφορὰ καὶ ἀσυμπάθεια ὡς ἂν μὴ μίαν καὶ τὴν
 45 αὐτὴν ἐχόντων ἔνωσιν. ἄλλοι δὲ καὶ τὸν περὶ
 εἰμαρμένης κινουσι λόγον· εἰ γὰρ μὴ πάντα γίνεται
 κατὰ εἰμαρμένην, οὐκ ἔστι Χαλδαϊκὴ ἢ τοῦτο
 ἀξιούσα [κατὰ εἰμαρμένην εἶναι]. οὐκ ὀλίγοι δὲ
 46 ἦσαν οἱ κάκεῖνο συνερωτῶντες. ἐπεὶ τῶν γινο-

But now that these matters have thus been ex- 41
 pounded by us in outline and summarily, it must first
 be grasped that the Chaldeans start from them in
 making their forecasts of the "effects." And in
 these there is a difference, since some are more
 simple, others more exact; more simple are those
 which occur by reason of the Sign or the simple power
 of a star,—as, for instance, that "this particular star
 when it is in this particular Sign produces men of such
 and such a kind"; and more exact are those which 42
 occur through concurrence and, as they say, through
 the blending of several factors,—as, for instance, "if
 this star is in the horoscope, and that in mid-heaven,
 and that other in anti-mid-heaven, and the rest are
 in certain other positions, then the effects will be as
 follows."

Such then, it seems, is the main outline of the 43
 Chaldean doctrine; and now that this has been
 expounded it is easy to follow intelligently the
 counter-arguments which are brought forward. Some
 people, indeed, try to argue quite bluntly that
 terrestrial things do not "sympathize" altogether 44
 with things celestial; for the surrounding vault is
 not unified in the same way as the human body, so
 that things on earth should "sympathize" with
 things in the heavens in the same way as the lower
 parts of the body sympathize with the head, and the
 head with the lower parts, but in respect of the
 former there exists a difference and want of sym-
 pathy, as they have not one and the same unification.
 —And others raise the argument concerning destiny; 45
 for unless all things happen according to destiny,
 astrology, which maintains this, does not exist.—And
 there have been not a few who propound the following

μένων τὰ μὲν κατ' ἀνάγκην γίνεται τὰ δὲ κατὰ
τύχην τὰ δὲ παρ' ἡμᾶς, πάντως οἱ Χαλδαῖοι, εἰ
δυνατῆς ἐφίενται προρρήσεως, ἤτοι ἐν τοῖς κατ'
ἀνάγκην ποιήσονται τὰς προαγορεύσεις ἢ ἐν τοῖς
47 κατὰ τύχην ἐκβαίνουσιν ἢ ἐν τοῖς παρ' ἡμᾶς. καὶ
εἰ μὲν ἐν τοῖς κατ' ἀνάγκην, ἀνωφελεῖς εἰσὶν ἐν
τῷ βίῳ· τὸ γὰρ κατ' ἀνάγκην συμβαῖνον οὐκ
ἔστιν ἐκκλίνειν, ἀλλ' ἐάν τε θέλωμεν ἐάν τε μὴ
θέλωμεν, ἐκβῆναι δεῖ τὸ τοιοῦτο. τότε δ' ἂν
χρειώδης ἐτύγχανεν ἢ πρόρρησις, εἰ πρὸς τὴν
ἐκκλισιν αὐτοῦ τὴν ἀναφορὰν ἐλάμβανεν. εἰ δ' ἐν
τοῖς τυχηροῖς, ἀδύνατόν τι ἐπαγγέλλονται· ἄστατα
γὰρ τὰ τυχηρῶς γινόμενα, τῶν δὲ ἀστάτων καὶ
ἄλλοτε ἄλλως ἐκβαίνοντων οὐκ ἔνεστιν ἐστῶσαι
48 ποιεῖσθαι τὴν προαγορεύσιν. λείπεται οὖν ἐν τοῖς
παρ' ἡμᾶς γιγνομένοις αὐτοὺς ποιεῖσθαι τὰς προρ-
ρήσεις. ὁ πάλιν ἀμήχανον· τὸ γὰρ ἐπ' ἐμοὶ κεί-
μενον ἐκβῆναι ἢ μὴ, καὶ τὸ μὴ ἔχον ἀρχῆθεν
προκαταβεβλημένην αἰτίαν, οὐκ ἂν δύναίτο τις
προλέγειν. οὐκ ἄρα δυνατῆς ἐφίενται προρρήσεως
οἱ Χαλδαῖοι.

49 Οἱ μὲν οὖν πλείους διὰ τοιούτων τινῶν ἀκροβο-
λισμῶν πειρῶνται τὴν Χαλδαϊκὴν μέθοδον ἀναι-
ρεῖν· ἡμεῖς δὲ κατὰ τὸν ὁμόθεν¹ τῆς ἐπιχειρήσεως
τρόπον τὰς ἀρχὰς καὶ ὡσπερ στοιχεῖα ταύτης
κινήσαντες ἐξομεν <σὺν> αὐτοῖς² καὶ τὴν τῶν
λοιπῶν θεωρημάτων σύστασιν ἡθετημένην.

50 Ἀρχὴ τοίνυν καὶ ὡσπερ θεμέλιος τῆς Χαλδαϊκῆς
ἐστὶ τὸ στήσαι τὸν ὠροσκόπον· ἀπὸ τούτου γὰρ
τὰ λοιπὰ τῶν κέντρων λαμβάνεται, τὰ τε ἀποκλι-

argument: Since some events occur by necessity, 46
some by chance, and some by our action, if the
Chaldeans aim at a possible prophecy, they will
certainly make their forecasts about events which
result either from necessity or from chance or from
our action. But if they do so about necessary events, 47
their forecasts are useless in practice; for it is im-
possible to avert what happens by necessity, for that
must take effect whether we like it or dislike it. And
the prophecy would have been useful only if it had
had reference to the means of averting it. And if it
is about chance events, they profess what is impos-
sible; for chance events are irregular, and of things
which are irregular and turn out differently at
different times it is not feasible to form a reliable
forecast. It remains, then, to say that they make 48
their prophecies about things which occur through
our own action. But this again is impossible; for
that which depends on me as to whether it occurs or
not, and which has no original predetermined cause,
no one can possibly predict. Therefore the Chal-
deans do not aim at a prophecy that is possible.

The majority, then, try to abolish the Astrologers' 49
doctrine by this sort of long range fire; but we shall
adopt a method of attack at close quarters, and when
we have overthrown its principles and elements, so
to call them, along with them we shall also find the
structure of the rest of their theories demolished.

The principle and foundation, as it were, of astrology 50
is the setting up of the "horoscope"; for the rest of
the "centres" are taken from this, also the declina-

¹ ὁμόθεν scripsi (cf. Xen. Cyr. 8. 8. 22): ὁμοιον Bekk.

² <σὺν> αὐτοῖς scripsi: αὐταῖς mss., Bekk.: αὐτῆς Herv.

ματα καὶ αἱ ἐπαναφοραὶ τὰ τε τρίγωνα καὶ τὰ
 τετράγωνα καὶ οἱ κατ' αὐτὰ σχηματισμοὶ τῶν
 ἀστέρων, ἀπὸ δὲ πάντων τούτων αἱ προαγορεύσεις.
 51 ὅθεν ἀναιρεθέντος τοῦ ὠροσκόπου κατ' ἀνάγκην
 οὐδὲ τὸ μεσουρανοῦν ἐστὶν ἢ δύνον ἢ ἀνιμμεσου-
 ρανοῦν γινώριμον· τούτων δὲ ἀκαταληπτουμένων
 52 συναφανίζεται πᾶσα ἡ Χαλδαϊκὴ μέθοδος. ὅτι δὲ
 ἀνεύρετον αὐτοῖς ἐστὶ τὸ ὠροσκοποῦν ζῶδιον
 ποικίλως ἔνεστι διδάσκειν. ἵνα γὰρ τοῦτο κατα-
 ληφθῆ, δεῖ πρῶτον μὲν τὴν γένεσιν τοῦ πίπτοντος
 ὑπὸ τὴν ἐπίσκεψιν βεβαίως κατειληφθαι, δεύτερον
 δὲ τὸ διασημαῖνον ταύτην ὠροσκόπιον ἀπλανὲς
 ὑπάρχειν, τρίτον δὲ τὴν ἀναφορὰν τοῦ ζῴδιου πρὸς
 53 ἀκρίβειαν συνῶφθαι. ἐπὶ μὲν γὰρ τῆς ἀποτέξεως
 ἢ ἀναφορὰ τοῦ κατ' οὐρανὸν ἀνίσχοντος ζῴδιου
 τετήρηται, καθάπερ διακόνῳ πρὸς τὴν τήρησιν τοῦ
 ὠροσκόπου χρησαμένων τῶν Χαλδαίων· ἐπὶ δὲ τῇ
 ἀναφορᾷ ὁ συσχηματισμὸς τῶν ἄλλων ἀστέρων,
 ὅπερ διάθεμα καλοῦσι, καὶ ἐπὶ τῷ διαθέματι αἱ
 54 προαγορεύσεις. οὔτε δὲ τὴν γένεσιν τῶν ὑπὸ τὴν
 ἐπίσκεψιν πιπτόντων λαμβάνει δυνατὸν ἐστίν, ὡς
 παραστήσομεν, οὔτε τὸ ὠροσκόπιον ἀπλανὲς καθ-
 ἐστῆκεν, οὔτε τὸ ἀνίσχον ζῴδιον πρὸς ἀκρίβειαν
 καταλαμβάνεται. τοίνυν ἀσύστατός ἐστιν ἡ τῶν
 55 Χαλδαίων μέθοδος. λέγωμεν δὲ περὶ τοῦ πρώτου
 πρώτου.

Τὴν δὴ γένεσιν τῶν ὑπὸ τὴν ἐπίσκεψιν πεσου-
 μένων ἀρχαιώτερον ἦτο ἀπὸ τῆς τοῦ σπέρματος
 καταβολῆς καὶ συλλήψεως λαμβάνουσιν ἢ ἀπὸ τῆς
 ἐκτέξεως. ἀλλ' ἀπὸ μὲν τῆς τοῦ σπέρματος κατα-
 βολῆς καὶ συλλήψεως οὐκ ἂν εἶποιεν ἀκατάληπτος

tions and the ascensions, and the triangular and
 quadrangular figures, and the resultant configurations
 of the stars, and the prognostications derived from all
 these. Hence, if the "horoscope" is abolished, in- 51
 evitably the "mid-heaven" is not known either, nor
 the "setting," nor the "anti-mid-heaven"; and these
 being non-apprehensible, therewith the whole astro-
 logical doctrine disappears. That the Sign of the horo- 52
 scope is indiscoverable by them one may show in many
 ways. For in order that it may be apprehended, in
 the first place the time of birth of the subject of
 investigation must be firmly apprehended, and
 secondly the "horologe" which signifies this must be
 unerring, and thirdly the "ascension" ^a of the Sign
 must have been observed accurately. For at the 53
 time of birth the ascension of the Sign which is rising
 in the heavens is observed, the Chaldeans using it as
 a minister for the observation of the horoscope; and
 after the ascension, the configuration of the rest of
 the stars, which they call the "disposition"; and
 after the disposition, the predictions. But, as we 54
 shall establish, it is not possible to perceive the time
 of birth of the subjects of the investigation, nor is
 the horologe unerring, nor is the rising Sign appre-
 hended accurately. The doctrine, then, of the Chal-
 deans is without substance. Let us deal with the 55
 first point first.

They take the time of birth of those who are to be
 the subjects of the investigation, in a rather primitive
 way, either from that of the depositing of the seed
 and conception, or from that of the parturition. But
 they will not say that it is from the depositing of the
 seed and conception, for the exact time of this is not

^a Cf. §§ 14 ff., 73 ff.

56 γάρ ἐστιν ὁ ἀκριβὴς ταύτης χρόνος. καὶ εἰκότως· οὐ γὰρ ἔχομεν λέγειν εἴτε ἅμα τῇ θέσει τοῦ σπέρματος γέγονεν ἢ σύλληψις εἴτε καὶ μῆ. δύναται μὲν γὰρ καὶ ἅμα νοήματι τοῦτο συμβαίνειν, ὡσπερ καὶ τὸ προσαχθέν τοῖς διαπύροις τῶν κλιβάνων

57 στέαρ (τοῦτο γὰρ εὐθύς κολλᾶται), δύναται δὲ καὶ μετὰ χρόνον, ἐπεὶ περ καὶ τὰ εἰς τὴν γῆν καταβαλλόμενα τῶν σπερμάτων οὐκ εὐθύς ριζοβολοῦντα συμπλέκεται ταῖς ὑποκειμέναις βώλοισι. καὶ διαστήματος δὲ ὄντος ἀπὸ τοῦ στόματος τῆς μήτρας μέχρι τοῦ πυθμένος, ἔνθα καὶ τὰς συλλήψεις λέγουσι γίνεσθαι ἰατρῶν παῖδες, πάντως ἐν χρόνῳ τινὶ τὸ διάστημα τοῦτο ποιεῖν πέφυκεν ἢ καταβαλλομένη

58 τοῦ σπέρματος φύσις. οἱ δὲ τούτου ἀγνοοῦντες τὴν ποσότητα τοῦ χρόνου κατὰ τὸ ἀκριβὲς Χαλδαῖοι τὴν σύλληψιν οὐδέποτε καταλήψονται. τοῦ (γὰρ)¹ σπέρματος ὅτε μὲν εὐθυβολομένου καὶ αὐτοῖς προσπίπτοντος ὑφ' ἑν τοῖς εὐφύως ἔχουσι πρὸς σύλληψιν τῆς μήτρας τόποις, ὅτε δὲ πολυσπόρων ἐμπίπτοντος, ὑπ' αὐτῆς δὲ τῆς ἐν τῇ μήτρᾳ δυνάμεως εἰς ἓνα τόπον συνάγεσθαι δυναμένου, τῶν ἀγνώστων τὸ πότε γίνεται τὸ πρῶτον καὶ πότε τὸ δεύτερον, πόσος τε ὁ εἰς ἐκείνην τὴν σύλληψιν ἀναλισκόμενος χρόνος καὶ πόσος ὁ εἰς

59 ταύτην. ἀγνοουμένων δὲ τούτων οἴχεται καὶ ἡ πρὸς ἀκρίβειαν τῆς συλλήψεως κατάληψις. εἶπερ τε, ὡς τινες τῶν φυσικῶν εἰρήκασιν, ἐψόμενον πρῶτον καὶ προμεταβάλλον ἐν μήτρᾳ τὸ σπέρμα τότε προσέρχεται τοῖς ἀναστομωθεῖσιν αὐτῆς ἀγγείοις, αὐτόθεν οὐκ εἰδότες τὴν ποσότητα τοῦ τῆς μεταβολῆς χρόνου οὐκ εἴσονται οὐδὲ τὸν τῆς συλ-

60 λήψεως καιρὸν. καὶ μῆν ὡσπερ κατὰ τὰ λοιπὰ

determinable. And naturally so; for we have no 56 means of saying whether the conception takes place at the same time as the depositing of the seed or not. For this can occur quick as thought—like the dough that is put in very hot ovens, for this coalesces at once,—but it can also occur after an interval, seeing 57 that the seeds deposited in the earth do not at once strike root and become entangled with the underlying soil. And as there is some distance between the mouth of the womb and its base (where, as the medical fraternity say, conceptions take place), the substance of the seed deposited will certainly occupy some time in covering this distance. And as they 58 are ignorant of the length of this time the Chaldeans will never apprehend precisely the moment of conception. For since at one time the seed is shot straight and falls all together on the very parts of the womb which are naturally suited for conception, while at another time it is dispersed in its fall, yet can be collected into a single place by the womb's own power, there is no knowing when the first process takes place and when the second, or how much time is spent over the former conception or how much over the latter. And when these things are unknown, 59 accurate apprehension of the conception vanishes.—Also if, as some of the physiologists affirm, the seed is first cooked and altered beforehand in the womb, and then enters those vessels of it which are gaping to receive it, as they do not know the amount of time consumed in the process of alteration, neither, of course, will they know the moment of conception.—Moreover, as women differ from one another in 60

¹ (γὰρ) add. Herv.

μέρη τοῦ σώματος ἐν ταῖς τῶν μερῶν ἐνεργείαις διαφέρουσιν ἀλλήλων αἱ γυναῖκες, οὕτως εἰκὸς αὐτὰς καὶ κατὰ τὴν τῆς μήτρας ἐνέργειαν διαφέρειν, τὰς μὲν θάπτον συλλαμβανούσας τὰς δὲ βράδιον. καὶ οὐ παράδοξον, ὅτε καὶ ἑαυταῖς συγκρινόμεναι νυνὶ μὲν εὐσύλληπτοι θεωροῦνται νυνὶ δὲ οὐδαμῶς.

61 τούτου δὲ οὕτως ἔχοντος τῶν ἀδυνάτων ἐστὶ λέγειν πρὸς ἀκρίβειαν τὸ πότε συνέσχηται τὸ καταβληθὲν σπέρμα, ἵνα καὶ ἀπὸ τούτου τοῦ χρόνου στήσωσιν οἱ Χαλδαῖοι τὸν τῆς γενέσεως

62 ὠροσκόπον. καὶ μὴν οὐδὲ ἔνεστι λέγειν ὡς διὰ σημείων τινῶν καταλαμβάνεσθαι πέφυκεν ὁ τῆς συλλήψεως χρόνος, καθάπερ ἐκ τοῦ κατεξηράνθαι μὲν μετὰ τὴν μίξιν τοὺς γυναικείους κόλπους, μεμικῆναι δέ, εἰ οὕτω τύχοι, τὸ τῆς μήτρας στόμιον, ἐπεσχῆσθαι δὲ τὴν ἔμμηνον κάθαρσιν, κίσσαν

63 δὲ ἐπιγίγνεσθαι. πρῶτον μὲν γὰρ καὶ ταῦτα κοινοποιεῖται τὰ σημεῖα πρὸς τὰς μὴ συνειληφύϊας· εἴτα καὶ εἰ μὴ κοινοποιοῖτο, γενομένην ἤδη κατὰ πλάτος πλειόνων ἡμερῶν διελθουσῶν σύλληψιν δηλοῖ, καὶ οὐ πρὸς ἀκρίβειαν καὶ ὑπόγυιον καὶ ἐν

64 ὠριαίοις κειμένην διαστήμασιν. χρεῖαν δ' ἔχουσιν οἱ Χαλδαῖοι πρὸς διάγνωσιν τῶν διαφερόντων βίωων οὐ τοῦ ὀλοσχεροῦς καὶ ἐν πλάτει χρόνου τῆς συλλήψεως, τοῦ δὲ πρὸς ἀκρίβειαν.

Ἄλλα γὰρ ἐκ τούτων πρόδηλον ὅτι οὐχ οἷόν τε ἐστὶν ἀπὸ συλλήψεως τὸν ὠροσκόπον ἐστάναι.

65 καὶ μὴν οὐδ' ἐξ ἀποτέξεως.¹ πρῶτον μὲν γὰρ ἄπορόν ἐστι τὸ πότε ῥητέον ἀπότεξιν εἶναι, ἀρὰ γε ὅποταν ἀρχῆται προκύπτει εἰς τὸν ψυχρὸν ἀέρα τὸ ἀποτικτόμενον, ἢ ὅταν ὀλίγον ἐξίσχη, ἢ ὅταν

¹ οὐδ' ἐξ ἀποτέξεως Nebe: οὐδὲ ἀπὸ τέξεως mss., Bekk.

all the other parts of the body in respect of the activities of those parts, so it is likely that they differ in respect of the activity of the womb, some conceiving more quickly, others more slowly. Nor is this hard to believe, when, compared with themselves, women are seen to conceive easily at one time and by no means easily at another. And this being so, it is impossible to state precisely when the deposited seed is conceived, so that (by calculating) from this time the Chaldeans might set up the horoscope of the nativity.—Nor yet can one say that 62 the time of conception may naturally be apprehended by means of certain signs,—for example, from the drying up of the uterine folds after the intercourse, and, if it should so happen, the closing of the mouth of the womb, and the cessation of the menses, and the occurrence of longings peculiar to pregnancy. For, in the first place, these signs are shared by 63 those who have not conceived; and, secondly, even if not thus shared, they indicate that conception has taken place when already, roughly speaking, several days have elapsed, and the time of it is not fixed precisely and closely and within the space of hours. But for their diagnosis of the different lives what the 64 Chaldeans need is not a rough and loose estimate of the time of conception, but an exact one.

Well then, from this it is quite plain that it is not possible for a horoscope to be set up from the time of conception. Nor yet from that of birth. For, 65 firstly, the moment when birth should be said to take place is a matter of doubt,—is it when the child begins to emerge into the cold air, or when it has emerged a little, or when it is deposited on the

66 εἰς τὴν γῆν κατενεχθῆ. εἶτα οὐδὲ ἐφ' ἐκάστου
 τούτων δυνατόν ἐστι τὸν ἀκριβῆ τῆς ἀποτεξέως
 χρόνον ὀρίζειν· καὶ γὰρ διὰ παράστημα ψυχῆς καὶ
 δι' ἐπιτηδειότητα σώματος καὶ προδιάθεσιν τῶν
 τόπων καὶ δι' ἐμπειρίαν μαίας καὶ ἄλλας ἀπείρους
 προφάσεις οὐχ ὁ αὐτός ἐστι χρόνος καθ' ὃν προ-
 κύπτει τὸ τικτόμενον ῥαγέντων τῶν ὑμένων ἢ
 ἐκτὸς ὀλίγον γίνεται ἢ εἰς τὴν γῆν καταφέρεται,
 67 ἀλλ' ἄλλος ἐπ' ἄλλων. ὃν πάλιν μὴ δυνάμενοι
 ὠρισμένως καὶ ἀκριβῶς σταθμῆσθαι οἱ Χαλ-
 δαῖοι ἐκπεσοῦνται τοῦ δεόντως τὴν τῆς ἀποτεξέως
 ὥραν ὀρίζειν.

“Ὅτι μὲν οὖν τὸ ὅσον ἐπὶ τοῖς τῆς ἀποτεξέως
 χρόνοις ἐπαγγέλλονται μὲν τὸν ὠροσκόπον γινώ-
 σκειν Χαλδαῖοι, οὐκ ἴσασι δέ, ἐκ τούτων συμ-
 68 φανές· ὅτι δὲ οὐδὲ τὸ ὠροσκόπιον ἀπλανές ἐστὶν
 αὐτοῖς, πάρεστι κατὰ τὸν ὅμοιον ἐπιλογίζεσθαι
 τρόπον. ὅταν γὰρ λέγωσιν ὅτι ὁ παρεδρεύων τῇ
 ὠδινούσῃ τὴν ἀπότηξιν δίσκῳ σημαίνει τῷ ἐπὶ τῆς
 ἀκρωρείας ἀστεροσκοποῦντι Χαλδαίῳ, κἀκεῖνος εἰς
 οὐρανὸν ἀποβλέπων ἐπισημιοῦται τὸ ἀνίσχον ζώ-
 διον, τὸ μὲν πρῶτον ὑποδείξομεν αὐτοῖς ὅτι τῆς
 ἀποτεξέως ἀορίστου τυγχανούσης, καθὼς μικρῶ
 πρόσθεν παρεστήσαμεν, οὐδὲ τὸ δίσκῳ διασημαί-
 69 νειν ταύτην εὐκολον. εἶτα ἔστω καὶ καταληπτὴν
 τυγχάνειν τὴν ἀπότηξιν, ἀλλ' οὐ γὰρ πρὸς ἀκριβῆ
 χρόνον ταύτην παρασημιοῦσθαι δυνατόν ἐστίν.
 τὸν γὰρ τοῦ δίσκου ψόφον ἐν πλείονι χρόνῳ [καὶ
 ἐν συχνῶ],³ πρὸς αἴσθησιν δυναμένῳ⁴ μερίζεσθαι, κι-
 νεῖσθαι συμβέβηκεν ἐπὶ τὴν ἀκρῶρειαν. τεκμή-
 ριον δὲ τὸ ἐπὶ τῶν ἐν τῇ ὄρεινῃ δενδροτομουόντων

ground? Secondly, not even in each of these cases 66
 is it possible to determine the exact time of the
 birth; for owing to the present state of the soul and
 the fitness of the body and the predisposition of the
 parts and the skill of the midwife and countless other
 causes, the time at which, after the bursting of the caul,
 the child is emerging, or has emerged a little, or is
 deposited on the ground, is not the same but different
 in different cases. And as the Chaldeans are again 67
 unable to measure this time definitely and precisely
 they will fail to determine correctly the hour of
 birth.

From this it is evident that in so far as it depends on
 the times of birth, though the Chaldeans profess that
 they know the horoscope, they do not know it. And 68
 one may argue in like manner that their “horologe”
 is not unerring. For when they say that the man
 who is sitting beside the woman in labour signifies the
 time of birth by means of a gong to the Chaldean
 who is on a peak watching the stars, and that he
 gazing at the heaven notes the rising Sign, we shall
 point out to them, firstly, that the time of birth being
 undetermined—as we proved a moment ago,³—it is
 not easy to signify it by means of a gong.—Next, let 69
 it be granted that the time of birth is discoverable,
 still it is not possible to transmit it by sign at the exact
 time. For the fact is that in moving up to the peak
 the sound of the gong takes a considerable amount
 of time which perceptibly admits of division into
 parts. And what is observed in the case of those
 who fell trees on a mountain-side is a proof of this;

³ Cf. §§ 65 ff.

⁴ [καὶ ἐν συχνῶ] om. Herv. (an ὡς ἐν σ. ?).

⁵ δυναμένῳ cj. Hackforth: δυνάμενον mss., Bekk.

¹ προδιάθεσιν scripsi: πρὸς διάθεσιν mss., Bekk.

θεωρούμενον· μετὰ γὰρ ἰκανὴν ὥραν τοῦ κατενεχ-
 θῆναι τὸν πέλεκυν ἐξακούεται ἢ τῆς πληγῆς φωνῆ
 ὡς ἂν ἐν πλείονι χρόνῳ φθάνουσα ἐπὶ τὸν ἀκού-
 70 οὔτα. καὶ διὰ τοῦτο τοῖνον οὐκ ἔστιν ἀκριβῶς
 τοὺς Χαλδαίους τὸν χρόνον τοῦ ἀνίσχοντος ζωδίου
 καὶ κατ' ἀκρίβειαν ὠροσκοποῦντος λαμβάνειν. καὶ
 μὴν οὐ μόνον φθάνει πλείων διελθεῖν χρόνος μετὰ
 τὴν ἀπότεξιν, ἐν ᾧ γίνεται ὁ ἤχος ἀπὸ τοῦ ταῖς
 τῆς τικτοῦσης ὠδίσσι παρεδρεύοντος ὡς ἐπὶ τὸν
 ἀστεροσκοποῦντα· ἀλλὰ καὶ ἐν ᾧ οὗτος ἀναβλέπει
 καὶ περισκοπῶν ἐξετάζει τὸ ἐν τίνι τῶν ζωδίων
 ἐστὶν ἢ σελήνῃ καὶ τῶν λοιπῶν ἀστέρων ἕκαστος,
 φθάνει ἄλλοιον γενέσθαι τὸ περὶ τοὺς ἀστέρας
 διάθεμα, τῆς τοῦ κόσμου κινήσεως ἀλήπτω¹ τάχει
 περιφερομένης, πρὶν τηρητικῶς παραπλάσασθαι τῇ
 τοῦ γεννηθέντος ὥρᾳ τὰ κατ' οὐρανὸν βλεπόμενα.
 71 ἄλλως τε ἢ τοιαύτη παρατήρησις νύκτωρ ἴσως
 δύναται προκόπτειν τοῖς Χαλδαίοις, ὅτε τὰ τε ἐν
 τῷ ζωδιακῷ βλέπεται κύκλῳ καὶ οἱ σχηματισμοὶ
 τῶν ἀστέρων εἰσὶν ἐμφανεῖς. ἐπεὶ οὖν τινὲς καὶ
 μεθ' ἡμέραν γεννῶνται, ὅτε οὐδὲν τῶν προειρη-
 μένων δυνατὸν ἐστὶ παρασημειοῦσθαι, μόνας δέ,
 εἰ καὶ ἄρα, τὰς τοῦ ἡλίου κινήσεις, ῥητέον ἐπὶ
 τινῶν μὲν δυνατὴν εἶναι τὴν τῶν Χαλδαίων μέθοδον
 72 ἐπὶ τινῶν δὲ ἀδύνατον. ὅρα δὲ μή ποτε καὶ νύ-
 κτωρ οὐκ ἰσχύουσιν ἀπλανεῖς διὰ παντὸς ποιησθῆναι
 τὰς τῶν οὐρανίων παρατηρήσεις· πολλάκις γὰρ
 συννεφεῖς εἰσὶν αἱ νύκτες καὶ ἀχλυώδεις, ἀγαπη-
 τὸν δὲ ἦν πάσης ἀναιρουμένης τοιαύτης προφάσεως
 τὸ βέβαιον εὔρεῖν ἐν τῷ² μαθήματι, μήτοι γε

for the sound of the blow is heard a considerable
 time after the fall of the axe, so that it takes some
 time to reach the listener. So because of this it is 70
 not possible for the Chaldeans to take the time of
 the rising Sign which is the exact horoscope with
 accuracy.—Moreover, not only does a considerable
 time elapse after the birth, during which the sound
 passes from the man seated beside the woman in
 travail to the man who is watching the stars; but
 also, while the latter is gazing upward and looking
 round to discover in which of the Signs the Moon lies
 and each of the other stars, the “disposition” of the
 stars changes, as the Universe in its motion revolves
 at an incredible speed, before he has described after
 observation the things seen in the heavens at the
 child’s natal hour.—Furthermore, the Chaldeans can, 71
 perhaps, have some success with this sort of observa-
 tion by night, when the objects within the circle of
 the zodiac are seen and the configurations the of
 stars are plain to view. Since, however, some are
 born in the daytime, when none of the objects
 mentioned above can be noted, but only, if anything,
 the motions of the sun, one must declare that the
 Chaldeans’ method is possible in some cases, impos-
 sible in others. But beware lest even at night some- 72
 times they are unable to make observations of
 celestial objects that are entirely correct; for the
 nights are often clouded over and misty, and one
 might be well satisfied if, with all such occasions
 eliminated, one could find in this science substantial
 truth; but when there exists some obstacle to the

¹ ἀλήπτω Nebe: ἀλέκτω Bekk. (*perpetua* Herv.).

² (τούτῳ) τῷ cj. Warmington.

καὶ κωλύματός τινος ὄντος πρὸς τὴν ἀκριβῆ τῶν οὐρανίων κατάληψιν.

- 73 Ἀθετήσαντες δὴ καὶ τὸ κατὰ τοὺς Χαλδαίους ὠροσκόπιον, συντόμως τε παραστήσαντες ὅτι μετὰ τῶν τῆς γενέσεως χρόνων ἀληπτόν ἐστιν αὐτοῖς, ἐπὶ τὸ λειπόμενον τῆς ὑποσχέσεως μέρος χωρῶμεν. ἐλείπετο δὲ καὶ περὶ τῆς ἀναφορᾶς τῆς ἐν τῷ ζωδιακῷ κύκλῳ διελθεῖν, ἀποστάντας τῶν ἔμπροσθεν
- 74 ἐκκειμένων ἡμῖν ἐλέγχων. φάμεν τοίνυν ὅτι δυσδιόριστοί εἰσιν ἀπ' ἀλλήλων, μᾶλλον δὲ ἀδυνάτως ἔχουσι κατὰ τὸ ἀκριβῆς ὀρισθῆναι αἱ τῶν ζωδίων μοῖραι, ἀλλ' εἰκός ἐστιν ἤδη ἀνεσχηκός ζωδίων δοκεῖν μήπω ἀνατεταλκέναι, καὶ ἀνάπαλι μὴπω
- 75 ἀνατεταλκός δοκεῖν ἤδη ἀνεσχηκέναι. οὐδὲ γὰρ ἡ προειρημένη τῶν ὕδριων ἔφοδος δύναται τι τοῖς Χαλδαίοις παρεπικουρεῖν, ἐπεὶ περ καὶ παρὰ τὸ ρέον ὕδωρ καὶ παρὰ τὴν τοῦ ἀέρος κρᾶσιν ἀνώμαλα τὰ τῆς ρύσεως καὶ τῶν ἀντιπαρηκόντων τῇ ρύσει χρόνων. τὴν μὲν γὰρ τοῦ ὕδατος φορὰν εἰκός ἐστιν ἀνόμοιον γίνεσθαι κατ' ἀρχάς, ὅτε καθαρὸν ἐστι τὸ ρέον, καὶ ἐξ ὑστέρου, ὅτε ἰλυώδες καὶ
- 76 δυσρευστότερον· τὴν δὲ τοῦ ἀέρος κρᾶσιν πιθανὸν ἀχλυώδους μὲν καὶ παχυτέρου ὄντος ἀντιπίπτει τῇ ἐκρύσει, τρόπον τινὰ ἐμφράττουσαν αὐτὴν, διαυγοῦς δὲ καὶ λεπτομοροῦς καθεστῶτος συνεργεῖν
- 77 μᾶλλον. καὶ αὐτὸς δὲ ὁ ἀμφορεύς οὐχ ὡσαύτως ῥυήσεται πλήρης καθεστῶς, ὡσαύτως δὲ ἡμίκενος ἢ πρὸς τῷ κενοῦσθαι τυγχάνων, ἀλλ' ὅτε μὲν ὀξύτερον ὅτε δὲ βραδύτερον ὅτε δὲ μέσως, τῆς οὐρανίου φορᾶς ἰσοταχῶς διὰ παντὸς ἐλυνομένης.
- 78 τὸ δὲ πάντων κυριώτατον, ἕκαστον τῶν ζωδίων οὐ

accurate perception of celestial objects, it is far otherwise.

And now that we have demolished the "horologe" 73 of the Chaldeans and have shown concisely that it, together with the times of nativity, is beyond their grasp, let us proceed to the remaining part of our undertaking. What remains was to discuss the rising in the circle of the Zodiac without touching on the criticisms we have stated above. We assert, then, 74 that the portions of the Signs are hard to mark off from one another, or rather cannot possibly be defined with accuracy; indeed it is likely that a Sign which has already ascended should appear not to have risen as yet, and conversely that a Sign which has not yet risen should appear to have already ascended. For 75 the scheme of the waterpots, mentioned above,^a is of no avail to rescue the Chaldeans, since owing to the flow of the water, and owing to the mixture of the air, the flow itself and the times parallel to the flow do not correspond. For as regards the motion of the water, it is likely that it is not the same at the beginning, when the flowing water is clear, and later on, when it is turbid and flows less easily; and as to the 76 mixture of the air, it probably opposes the outflow, acting as a kind of block, when it is misty and rather dense, and gives it more aid when it is pellucid and of fine texture. The jar itself, too, will not leak 77 equally when it is full and when it is half-empty or nearly emptied, but more rapidly at one time and more slowly at another, and at yet another time at a medium pace, whereas the celestial motion continues constantly at an even speed. And most 78 important of all, each of the Signs is not a continu-

^a Cf. § 24.

συνεχές ἐστὶ σῶμα, οὐδ' ὥσπερ ἡρμολογημένον
 τῷ πρὸ ἑαυτοῦ καὶ μεθ' αὐτὸ συνήπται μηδεμιᾶς
 μεταξὺ πιπτούσης διαστάσεως, ἀλλ' ἐκ διεσπαρ-
 μένων ἀστέρων συνέστηκε καὶ μεταξυτήτας τινας
 ἐχόντων καὶ διαλείμματα, τοῦτο μὲν κατὰ τὴν
 79 μεσότητά τοῦτο δὲ πρὸς τοῖς πέρασιν. ὅθεν πάν-
 τως, ἀριθμητοῖς μορίοις τῶν ἐν τῷ κύκλῳ ζῶδιων
 περιγραφομένων, πλάνην ἀναγκαῖόν ἐστι γίννε-
 σθαι τοῖς ἀπὸ τῆς γῆς παρατηροῦσι, λανθάνοντος
 αὐτοῦς τοῦ προσπίπτοντος διαλείμματος, εἴτε τοῦ
 προηγούμενου ζῶδιου πέρασ ἐστὶν εἴτε τοῦ ἐπ-
 80 αινόντος ἀρχή. οἱ δὲ λόφοι ἀφ' ὧν αἱ ἀστεροσκο-
 πία γίνονται, οὐχ οἱ αὐτοὶ πάντοτε διαμένουσιν,
 ἀλλὰ κατὰ μοῦραν ἑτεροιοιμένοι καὶ μεταβάλ-
 λοντος τοῦ κόσμου ἤτοι κατακλυσμοῖς ἐξ ὄμβρων
 ἢ σεισμοῖς γῆς ἢ ἄλλοις τισὶ τοιούτοις παθήμασιν
 ἐνοχλοῦνται, ὥστε καὶ παρὰ τὴν τούτων ἐξαλλαγὴν
 μὴ τὰς αὐτὰς γίνεσθαι τῶν ἀστέρων παρατηρήσεις,
 ἀλλ' ἑτέραν μὲν <τοῖς>¹ ἀφ' ὕψους συμβαίνειν παρα-
 τήρησιν διαφέρουσιν δὲ τοῖς ἀπὸ χθαμαλοῦ βλέ-
 81 πουσιν, καὶ τὸ ἐκείνους ὄφθην μὴ πάντως καὶ τοῖς
 ἄλλοις τεθεωρηῆσθαι. συμπαραλάβοι δ' ἂν τις ἐνταῦ-
 θα καὶ τὴν τῶν αἰσθήσεων παραλλαγὴν· ἄλλοι γὰρ
 ἄλλων εἰσὶν ὄξυωπέστεροι, καὶ ὃν τρόπον τὸ μηδέ-
 πω βλεπόμενον ἡμῖν διὰ ποσὴν ἀπόστασιν, τοῦτο
 ὡς μέγιστον κατελήφασιν αἰετοὶ τε καὶ ἰέρακες
 δι' ὑπερβολὴν ὄξυωπίας, οὕτω τὸ ἀνίσχον ἤδη καὶ
 ὠροσκοποῦν ζῶδιον ἐκ μακροῦ διαστήματος τῷ
 μὴ ὄξυωποῦντι Χαλδαίῳ πιθανόν ἐστὶν ὡς μηδέπω
 ἀνατετακὸς δοξάζεσθαι, καὶ κατὰ σύγκρισιν ἀμ-
 82 βλυωποῦντι. προσθετόν δὲ τούτοις ὡς ἐναργέ-
 στατον τῆς Χαλδαϊκῆς ἔλεγχον καὶ τὴν περὶ τῶ

ous body, nor is it connected, as though by joints,
 with the one which precedes it and the one which
 follows it, with no space intervening, but it is com-
 posed of scattered stars which have certain inter-
 spaces and intervals, this one at the centre and that
 one at the limits. Hence, as the Signs in the circle 79
 are circumscribed by numerable portions, it is cer-
 tainly necessary that those who are observing from
 the earth should fall into error, since they cannot
 tell whether the interval under observation is the
 limit of the preceding Sign or the commencement of
 that which comes next. And the peaks upon which 80
 the watchings of the stars take place do not remain
 always the same, but, as the Universe alters and
 changes as fate decrees, either by floods caused by
 rain, or by earthquakes, or by some other accidents of a
 similar kind, they are disturbed, so that owing to their
 alteration the observations of the stars do not remain
 the same, but the observation taken by those on the
 height is of one kind and that taken by those who are
 gazing from the plain is of a different kind, and what is
 seen by the former is not in all cases visible to the
 others. And here one may also take account of the 81
 differences in the senses; for some are more keen of
 sight than others, and just as an object which is not as
 yet seen by us owing to its great distance is perceived
 as a very large object by eagles and hawks owing to
 their excessively keen sight, so it is probable that the
 Sign which has already ascended and is the horoscope
 should appear as not yet risen to the Chaldean, who
 is not keen of sight but by comparison short-sighted,
 because of its vast distance. And to these we must 82
 add, as the clearest disproof of astrology, the differ-

¹ <τοῖς> addidi.

ορίζοντι τοῦ ἀέρος διαφορὰν· εἰκὸς γὰρ ὅτι παχυ-
 μερεστάτου¹ αὐτοῦ καθεστῶτος κατὰ ἀνάκλασιν
 τῆς ὄψεως τὸ ὑπὸ γῆν ἔτι καθεστῶς ζώδιον δοκεῖν
 ἤδη ὑπὲρ γῆς τυγχάνειν, ὁποῖόν τι καὶ ἐπὶ τῆς ἐφ'
 ὕδατος ἀντανακλωμένης ἠλιακῆς ἀκτίνος γίνεται·
 μὴ βλέποντες γὰρ τὸν ἥλιον αὐτὸν (ταύτην)² πολ-
 83 λάκις ὡς ἥλιον δοξάζομεν. τὸ δὲ πάντων συνεκ-
 τικώτατον, εἰ μὲν πᾶσι τοῖς κατὰ τὴν οἰκουμένην
 τὰ οὐράνια παρατηροῦσιν ἕκαστον τοῦ ζωδιακοῦ
 δωδεκατημόριον ἰσοχρόνως ἐφαίνετο καὶ κατὰ τὴν
 αὐτὴν εὐθείαν ἐθεωρεῖτο, τάχ' ἴσως ἂν ἐδύναντο
 Χαλδαίων παῖδες παγίως λαβεῖν τὸ περὶ τὸν ὀρί-
 84 ζοντα ἀνίσχον ζώδιον. νυνὶ δὲ ἐπεὶ οὐ παρὰ πᾶσιν
 ἰσοχρόνως ἀναφαίνεται ἀλλὰ τοῖς μὲν θάπτον τοῖς
 δὲ βράδιον καὶ τισὶ μὲν πλάγιον τισὶ δὲ ὀρθόν,
 ἐπακολουθεῖ τὸ μὴ πᾶσι τὸ αὐτὸ δοκεῖν ὠροσκο-
 πεῖν ζώδιον, ἀλλὰ τὸ τούτοις ἤδη δοκοῦν ἀνατε-
 ταλκέναι, τοῦτ' ἄλλοις ἀκμήν ὑπόγειον ὑπάρχειν,
 καὶ τὸ ἑτέροις φαινόμενον ἐν ἀποκλίματι τοῦ ὠρο-
 σκοποῦντος ζωδίου, τοῦτο ἑτέροις θεωρεῖσθαι
 85 ὠροσκοποῦν. καὶ ὅτι ταυθ' οὕτως ἔχει, πρόδηλον
 ἐκ τοῦ καὶ τοὺς ἀπλανεῖς ἀστέρας, καθάπερ ἀρ-
 κτοῦρον καὶ κύνα, μὴ κατὰ τὸν αὐτὸν χρόνον τοῖς
 ἐν παντὶ κλίματι κατοικοῦσι φαίνεσθαι ἀλλ' ἄλλοις
 κατ' ἄλλον.

Ὅτι μὲν οὖν οὐκ ἐνδέχεται κατ' ἀκρίβειαν τὸ
 ὠροσκοποῦν ζώδιον λαβεῖν, διὰ δὲ τούτου οὐδὲ τῶν
 ἄλλων τι κέντρων, ἀφ' ὧν αἱ προαγορεύσεις γίνον-
 86 ται τοῖς Χαλδαίοις, αὐτάρκως παρεστήσαμεν. ἐκ

¹ ὅτι παχυμερεστάτου scripsi: ὅτι παχυμεροῦς mss., Bekk.
 (ἐνίστε π. cj. Bekk.).

² (ταύτην) add. cj. Bekk.

ence of the air at the horizon, for as it is of the
 greatest possible density, it is likely that, owing to
 the reflexion of the visual stream, the Sign which is
 still below the earth will appear to be already above
 the earth,—the sort of phenomenon which also occurs
 in the case of the solar ray which is reflected on
 water; for, though we do not behold the sun itself, we
 often imagine it to be the sun.—But the most con- 83
 clusive argument of all is this: If each twelfth portion
 of the zodiac appeared at the same time to all those in
 the world who are observing the celestial objects, and
 was seen in the same straight line, then perhaps the
 Chadean fraternity might have been able to perceive
 with certainty the Sign ascending at the horizon.
 But as it is, since it does not appear to all at the same 84
 time, but more quickly to some and more slowly to
 others, and to some obliquely but vertically to others,
 it follows that the same Sign does not seem to all to
 form the horoscope, but that which to one party
 seems to have risen already appears to others to be
 quite beneath the earth, and that which to some
 appears in the declination^a of the Sign of the horo-
 scope is by others viewed as the Sign of the horoscope.
 And that this is the case is quite evident from the fact 85
 that the fixed stars, such as Arcturus and Canis,
 do not appear to the dwellers in every region at
 the same time, but at different times to different
 people.

So now we have established by proofs sufficient in
 themselves that it is not possible to determine accu-
 rately the Sign of the horoscope, nor, consequently,
 any one of the other "centres" from which the
 Chaldeans derive their predictions. But over and 86

^a Cf. §§ 14, 18.

περιουσίας δὲ λεκτέον ὅτι κὰν καταληπτὸς ἦ ὁ ἀκριβῆς τῆς τούτων ἐπαναφορᾶς χρόνος, ἐκεῖνο μὲν συμφανὲς ὅτι οὐθεὶς τῶν παραγινόμενων πρὸς τοὺς Χαλδαίους ἰδιωτῶν τετηρηκῶς ἐφ' ἑαυτοῦ τὸν ἀκριβῆ χρόνον παραγίνεται· πολλῆς γὰρ ἦν τεχνιτείας τὸ πρᾶγμα, ὡς πρότερον ἐδείκνυμεν, καὶ πλεον ἢ κατ' ἰδιώτην ὑπέφαιναν. ἐπεὶ οὖν ὁ Χαλδαῖος οὐκ ἐτήρησε τὸν ἀκριβῆ τῆς γενέσεως χρόνον ἐπὶ τοῦδε τοῦ ἰδιώτου ἀλλὰ παρ' αὐτοῦ τοῦτον ἀκούει, οὐτοσὶ δὲ ὁ ἰδιώτης τὰ μὲν δι' ἀπειρίαν τὰ δὲ καὶ διὰ τὸ μὴ πάνυ τι ἐσπουδακέναι περὶ τὸ πρᾶγμα πάλιν οὐκ οἶδε τὸν ἀκριβῆ χρόνον, καταλείπεται ἄρα πρόρρησιν μὲν μηδ' ἠντινοῦν βεβαίαν, πλάνην δὲ καὶ φενακισμὸν ἀπὸ Χαλδαικῆς τοῖς ἀνθρώποις περιγίνεσθαι.

87 Εἰ δὲ ἀναστρέψαντες λέγοιεν μὴ τὸν ἀκριβῆ χρόνον λαμβάνεσθαι ἀλλὰ τὸν ὀλοσχερῆ καὶ ἐν πλάτει, ὑπ' αὐτῶν σχεδὸν ἐλεγχθήσονται τῶν ἀποτελεσμάτων· οἱ γὰρ ἐν τῷ αὐτῷ καθ' ὀλοσχέρειαν χρόνῳ γεννηθέντες οὐ τὸν αὐτὸν ἔζησαν βίον, ἀλλ' οἱ μὲν λόγῳ χάριν ἐβασίλευσαν οἱ δὲ ἐν πέδαις κατεγήρασαν. οὐθεὶς γοῦν Ἀλεξάνδρῳ τῷ Μακεδόνι γέγονεν ἴσος, πολλῶν κατὰ τὴν οἰκουμένην συναποτεχθέντων αὐτῷ, οὐδὲ Πλάτῳ τῷ φιλοσόφῳ. ὥστε εἰ τὸν ἐν πλάτει τῆς γενέσεως χρόνον ὁ Χαλδαῖος ἐπισκέπτεται, οὐ δυνήσεται¹ παγίως λέγειν ὅτι ὁ κατὰ τοῦτον τὸν² χρόνον γεννηθεὶς εὐτυχῆσει, πολλοὶ γὰρ κατὰ τὸν αὐτὸν χρόνον τούτῳ γεννηθέντες ἐδυστύχησαν, καὶ ἀνάπαλιν ὅτι ὅδε τις ἀπορήσει· οὐκ ὀλίγοι γὰρ τῶν τὸ αὐτὸ διάθεμα

¹ δυνήσεται Nebe : δυνήθησεται mss., Bekk.

above the foregoing we should add the argument that even if the exact time of the ascent of these Signs is apprehensible, yet it is plain that none of the ordinary persons who apply to the Chaldeans has observed for himself the exact time before applying ; for the task calls for much expertness, as we have shown above,^a and seems beyond the capacity of the ordinary man. Since, then, the Chaldean did not observe the exact time of the birth in the case of a particular ordinary person, but hears it from the person himself, and this ordinary person again, partly through want of skill and partly through not taking very much trouble about the matter, does not know the exact time, the result is that men gain from astrology no valid prediction whatsoever but error and deception.

And if they turn round and say that the time is determined not exactly but roughly and approximately, the results themselves will be enough to refute them ; for those who were born at what is roughly the same time have not lived the same life, but some, for example, have been kings while others have grown old in chains. Thus, though many throughout the world were born at the same time as he, none was equal to Alexander of Macedon, nor to the philosopher Plato. So that if the Chaldean considers what is roughly the time of birth, he will not be able to state definitely that he who was born at this time will have good fortune, for many who were born at the same time as he have had ill fortune ; or conversely, that this particular man will be ill off ; for not a few of those who shared in the same " disposi-

^a Cf. §§ 27 ff.

² τοῦτον τὸν scripsi : τὸν αὐτὸν mss., Bekk.

90 ἐσχηκότων εὐπορώτατοι κατεγήρασαν. καὶ μὴν οὐδὲ μετρίως ἐλέγχειν φαίνεται τοὺς Χαλδαίους καὶ ὁ ἀναστρέφων πρὸς τὴν εἰρημένην ἐπιχείρησιν λόγος. εἰ γὰρ οἱ τὸ αὐτὸ διάθεμα τῆς γενέσεως ἔχοντες τοῖς αὐτοῖς ἀποτελέσμασιν ἐν τῷ βίῳ περιπίπτουσι, πάντως καὶ οἱ διαφόρους ἔχοντες γενέσεις διάφοροι γίνονται. ὅπερ ἐστὶ ψεῦδος·

91 ὀρώμεν γὰρ πολλοὺς κατὰ τε ἡλικίας διαφέροντας καὶ κατὰ μορφᾶς σωμάτων καὶ κατὰ ἄλλας παμπληθεῖς ιδιότητας παθῶν τῷ ὁμοίῳ τέλει περιπεπτωκότας καὶ ἤτοι ἐν πολέμῳ ἀπολομένους ἢ ἐν συμπτώσεσιν οἰκίῳ ἀποληφθέντας ἢ ναυαγίαις καταποντισθέντας· οὖς, εἴπερ ἔζων, πῶς ἂν ὁ Χαλδαῖος προειρήκει τὴν ἐσομένην τοῦ βίου κατα-

92 στροφήν, ἄξιον διαπορεῖν. εἰ γὰρ ὁ μὲν ἐν τῇ ἀκίδι τοῦ τοξότου γεννηθεὶς κατὰ τὸν μαθηματικὸν σφαγήσεται λόγον, πῶς αἱ τοσαῦται μυριάδες τῶν βαρβάρων ἀνταγωνιζόμεναι πρὸς τοὺς Ἕλληνας ἐν Μαραθῶνι ὑφ' ἐν κατεσφάγησαν; οὐ γὰρ δὴ γε ἐπὶ πάντων ὁ αὐτὸς ἦν ὠροσκόπος. καὶ πάλιν εἰ ὁ ἐν τῇ κάλπιδι τοῦ ὑδροχόου γεννηθεὶς ναυαγήσει, πῶς οἱ ἀπὸ Τροίας ἀνακομιζόμενοι τῶν Ἑλλήνων περὶ τὰ κοῖλα τῆς Εὐβοίας συγκατεποντίσθησαν;¹

93 ἀμήχανον γὰρ πάντας μακρῶ διαφέροντας ἀλλήλων ἐν τῇ κάλπιδι τοῦ ὑδροχόου γεγενῆσθαι. καὶ μὴν οὐδὲ ἔνεστι λέγειν ὅτι δι' ἓνα πολλακίς, ᾧ εἴμαρται κατὰ πέλαγος φθαρῆναι, πάντες οἱ ἐν τῇ νηὶ συναπόλλυνται· διὰ τί γὰρ ἢ τούτου εἰμαρμένη τὰς πάντων νικᾷ, ἀλλ' οὐχὶ διὰ τὸν ἓνα ᾧ εἴμαρται ἐπὶ

94 γῆς θανεῖν πάντες περισώζονται; ἄλλος δέ τις

tion "a have been exceedingly well off in their old age.—Moreover, the argument thus turned round to meet the attack mentioned appears to confute the Chaldeans very completely. For if those who have the same "disposition" at birth meet with the same results during life, then certainly those whose births are different become different. But this is false; for 91 we see many, who differ as to age and bodily shape and countless other peculiar affections, yet meeting with a similar end,—either perishing in war or being crushed by the collapse of houses or drowned in shipwrecks; and if these had lived, one may well be puzzled to know how the Chaldean would have foretold what the conclusion of their life was to be. For if the man who 92 was born in the arrow's point of the Archer is doomed—according to the astrological theory—to be slain, how is it that all those myriads of barbarians who fought against the Greeks at Marathon were all slain at one time? For the horoscope was not the same for them all. And again, if he who was born in the pitcher of Aquarius is doomed to suffer shipwreck, how is it that the Greeks who were being brought back from Troy ^b were all drowned together round the "Hollows" of Euboea? For that all these men, who 93 differed greatly from one another, could have been born in the pitcher of Aquarius is impossible. Nor yet is it possible to say that because of one man who was, for instance, destined to perish at sea all those in the ship perish along with him; for what reason is there why this man's destiny overmasters the destinies of them all, rather than that they should all be saved because of one man whose destiny it is to die on dry land?—And some other person will raise a doubt re- 94

¹ συγκατεποντίσθησαν Nebe; συγκατεποντώθησαν mss., Bekk.

^a Cf. § 53.

^b Cf. Eurip. *Hel.* 1126 ff.

SEXTUS EMPIRICUS

ἀπορήσει καὶ περὶ τῶν ἀλόγων ζώων. εἰ γὰρ παρὰ τοὺς συσχηματισμοὺς τῶν ἀστέρων τὰ κατὰ τὸν βίον ἀποτελέσματα πέφυκεν ἐκβαίνειν, ἐχρῆν ἐν τῷ αὐτῷ τούτῳ τοῦ ζωδίου μορίῳ κάνθωνος ἄμα καὶ ἀνθρώπου γεννηθέντων τὴν αὐτὴν ἐν ἀμφοτέροις ἀκολουθεῖν τῶν βίων ἐκβασιμ, καὶ μὴ τὸν μὲν ἄνθρωπον πολλακίς ἐπιφανῶς πολιτευσάμενον περισπούδαστον εἶναι τοῖς δήμοις, τὸν δὲ κάνθωνα διὰ παντὸς ἀχθοφορεῖν ἢ εἰς μύλωνας 95 ἀπάγεσθαι. τοίνυν οὐκ ἔστιν εὐλογον πρὸς τὰς τῶν ἀστέρων κινήσεις διοικεῖσθαι τὸν βίον· ἢ ἔπειρ ἔστιν εὐλογον, ἡμῖν πάντως ἀκατάληπτον.

Ἀπὸ δὲ τῆς αὐτῆς ὀρμώμενοι δυνάμεις δυσωπήσομεν αὐτοὺς καὶ ἐν οἷς συνοικεῖοῦν θέλουσι τοῖς τῶν ζωδίων τύποις τὰς τε μορφὰς καὶ τὰ ἦθη τῶν ἀνθρώπων, οἷον ὅταν λέγωσιν, ὁ ἐν λέοντι γεννηθεὶς ἀνδρείος ἔσται, ὁ δὲ ἐν παρθένῳ τετανόθριξ 96 χαροπὸς λευκόχρως ἄπαις αἰδήμων. ταῦτα γὰρ καὶ τὰ τούτοις ὅμοια γέλωτος μᾶλλον ἢ σπουδῆς ἔστιν ἄξια. πρῶτον μὲν γάρ, εἰ ὅτι ἄλκιμον καὶ ἀρρενωπὸν ἔστιν ὁ λέων, φασι τὸν ἐν αὐτῷ γεννώμενον ἀνδρείον τυγχάνειν, πῶς τὸν ταύρον ἀναλο- 97 γοῦντα τούτῳ θῆλυ νομίζουσι ζῶον; εἶτα μάταιον τὸ¹ οἰεσθαι ζώδιον κάλλιστον τὸν λέοντα τὸν ἐν οὐρανῷ ἀναλογίαν ἔχειν τῷ ἐπὶ γῆς· εἰκὸς γὰρ τοὺς παλαιοὺς τὰ τοιαῦτα τῶν ὀνομάτων τίθεσθαι κατὰ ψιλὴν τὴν τοῦ χαρακτήρος ἐμφέρειαν, τάχα δὲ οὐδὲ κατ' αὐτὴν ἀλλ' εὐσήμου χάριν διδα- 98 σκαλίας. τί γὰρ ὅμοιον ἔχουσιν ἄρκτω οἱ ἑπτὰ

¹ μάταιον τὸ Nebe (et ego) : μετὰ τοῦτο mss., Bekk. (*inertium est Herv.*).

* But Manilius vi. 202 says "fecundus erit, quod mirum

garding the irrational animals. For if the effects in life naturally result from the configurations of the stars, then, when a pack-ass and a man are both born in this same portion of the Sign, the same kind of life ought to have followed as a result in both cases, instead of the man being, for example, conspicuous as a statesman and admired by the citizens, while the pack-ass is continually laden with burdens or led away to the mill-houses. So it is not reasonable that life is 95 ordered according to the motions of the stars; or if it is reasonable, certainly it is beyond our comprehension.

Starting from the same standpoint we shall also put them to shame when they propose to associate the shapes and characters of men with the figures of the Signs, as, for instance, when they say that the man born in Leo will be brave, and the man born in the Virgin will be straight-haired, bright-eyed, white-skinned, childless,^a and modest. For this and such- 96 like notions are deserving of ridicule rather than serious attention. For, in the first place, if they assert that the man born in Leo is brave because the lion is a valiant and manly beast, how is it that they reckon the Bull, which is on a par with the Lion, to be a womanish beast? And, secondly, it is nonsense to 97 suppose that the Lion in the heavens, that most beautiful Sign, bears any analogy to the earthly lion; for it is probable that the ancients gave them names of this sort merely because of the similarity of their figures, and perhaps not even for this reason, but just for the sake of clearness in exposition. For what 98 resemblance have the seven stars to a bear, separated

in virgine, partus" (hence Bekker conjectured *εὔπαις* for *ἄπαις*).

ἀστέρες, διεστῶτες ἀπ' ἀλλήλων; ἢ δράκοντος
κεφαλῇ οἱ πέντε, ἐφ' ὧν φησὶν ὁ Ἄρατος

ἀλλὰ δύο κροτάφους, δύο δ' ὄμματα, εἰς δ' ὑπ-
ἐνερθεν
ἐσχατιὴν ἐπέχει γένυος δεινοῖο πελώρου.

99 οὐ μὴν ἀλλὰ καὶ ὡς ἀνώτερον ἐλέγομεν, τῶν ἐν
τῷ αὐτῷ ζῳδῖῳ γεννωμένων οὐθ' αἱ μορφαὶ εἰσιν
αἱ αὐταὶ οὔτε τὰ ἦθη ἐστὶν ὁμοία, ἐκτός εἰ μὴ τὰς
μοίρας εἰς ἃς ἕκαστον διαιρεῖται ζῳδῖον καὶ τὰ
λεπτὰ φήσουσι τῆς τοιαύτης διαφορᾶς εἶναι ποιη-
τικά. ὁ πάλιν ἐστὶν ἀδύνατον· ἐδείξαμεν γὰρ τὴν
ἐν τοῖς αὐτοῖς χρόνοις τῆς ἀποτέξεως καὶ ὠροσκο-
100 πῆσεως ἀκρίβειαν ἀσύστατον. δυοῖν τε θάτερον·
ἢ γὰρ ὅτι λέων λέγεται τὸ ζῳδῖον, καὶ ὁ γεννηθεὶς
ἀνδρείος γίνεται, ἢ ὅτι τραπέντος τοῦ ἀέρος ὑπὸ
τοῦ κατ' οὐρανὸν λέοντος τοιαῦται συμβαίνουσι
καὶ περὶ τὸν ἀποκτικτόμενον ἄνθρωπον διαθέσεις.
ἀλλὰ διὰ μὲν τὸ λέοντα καλεῖσθαι τὸ ὠροσκοποῦν
ζῳδῖον οὐ πιθανὸν ἀνδρείον γίνεσθαι· τούτῳ γὰρ
τῷ λόγῳ ἐχρῆν καὶ τοὺς τῷ ἐπιγείῳ λέοντι συναπο-
τεχθέντας ἢ συντραφέντας ἀνδρείους ὑπάρχειν παρ-
101 ὅσον λέων λέγεται τὸ ψ̄ συνετράφησαν ζῳῷ. εἰ
δὲ διὰ τὴν τοῦ ἀέρος τροπὴν, τί τοῦτο πρὸς τὴν
τοῦ βίου διαφορὰν; εἰς μὲν γὰρ τὸ ἰσχυρὸν τοῖς
σώμασι γίνεσθαι τὸ γεννώμενον καὶ θηριῶδες τοῖς
ἦθεσι τάχα συμβάλλεται ἢ ποῖα τοῦ ἀέρος κρᾶσις,
εἰς δὲ τὸ δανείους κατάχρευν γενέσθαι τὸ γεννώ-
μενον ἢ βασιλευεῖν ἢ δεθῆναι ἢ σπανότεκνον ἢ
σπανάδελφον ὑπάρχειν οὐδ' ὅτιοῦν φαίνεται συνερ-
102 γεῖν ὁ ἀήρ. καὶ πάλιν εἰ ὁ παρθένου ὠροσκοπού-
366

as they are from one another? Or the five to a
dragon's head,—the five stars whereof Aratus says *

But two sit on the temples and two on the eyes, and below
them

One has its seat on the base of the jaw of the terrible
monster.

Nor, in fact, as we said above,^b are those born in the 99
same Sign of the same shape or of similar character,
unless they shall say that the sections and sub-
sections into which each Sign is divided^c are capable
of producing differences of the sort. But this again
is impossible; for we have proved^d that accuracy as
regards the identical times of the birth and of the
horoscope-taking is not to be had.—Also, of two 100
things one: either the man born is brave because the
Sign is called the Lion, or because, when the air
under the celestial Lion is changed, dispositions of
that sort are brought about in the man who is being
born. But it is not credible that he should be brave
because the Sign of his horoscope is called the Lion;
for by this reasoning those who were born or reared
along with the earthly lion ought also to have been
brave, inasmuch as the animal along with which they
were reared is called a lion. And if it is because of 101
the change of the air, what has this to do with a differ-
ence in the life? For though a certain blend of the
air possibly contributes to the bodily strength and
beast-like character of the creature born, yet the air
does not seem to co-operate at all in causing the
creature to be involved in debt or to be a king or to
be put in gaol or to be lacking in children or brethren.
—And again, if he who has the Virgin for horoscope 102

* Cf. Aratus, *Phaenom.* 56 f. Aratus, *circ.* 270 B.C., wrote
astronomical poems.

^b Cf. §§ 89 ff.

^c Cf. § 5.

^d Cf. §§ 74 ff.

σης τετανόθριξ χαροπὸς λευκόχρως, δεήσει μηδένα τῶν Αἰθιοπίων παρθένον ἔχειν ὠροσκοποῦσαν, ἐπεὶ δώσουσιν Αἰθίοπα λευκὸν εἶναι καὶ χαροπὸν καὶ
 103 τετανότριχα, ὃ πάντων ἐστὶν ἀτοπώτατον. καθόλου δέ, ἐπεὶ οὐδ' ἐνδείκνυσθαι λέγουσιν αὐτοῖς τοὺς ἀστέρας τὰς τῶν ἀνθρωπίνων βίων διαφοράς, ἀλλ' αὐτοὶ ταύτας συμπαρατηρηκέναι ταῖς τῶν ἀστέρων σχέσεσι, φημί ὅτι εἰ μελλήσει βέβαιος πρόρρησις γίνεσθαι, δεῖ τὴν αὐτὴν τῶν ἀστέρων σχέσιν μὴ ἅπαξ συμπαρατηρηκέναι τῷ τινὸς βίῳ ἀλλὰ καὶ δεύτερον δευτέρου καὶ τρίτον τρίτου, ἵνα ἐκ τοῦ διομαλίζειν ἐπὶ πάντων τὰς τῶν ἀποτελεσμάτων ἐκβάσεις μάθωμεν ὅτι τῶν ἀστέρων τοιούτων ἀναδεξαμένων τὸν σχηματισμὸν τότε πάντως
 104 ἔσται τὸ ἀποβησόμενον· καὶ ὃν τρόπον ἐν τῇ ἱατρικῇ ἐτηρήσαμεν ὅτι ἡ τῆς καρδίας τρώσις αἰτιὸν ἐστὶ θανάτου, οὐ τὴν Δίωνος μόνον τελευτήν αὐτῇ συμπαρατηρήσαντες ἀλλὰ καὶ Θέωνος καὶ Σωκράτους καὶ ἄλλων πολλῶν, οὕτω καὶ ἐν μαθηματικῇ εἰ πιστόν ἐστιν ὅτι ὁδε ὁ συσχηματισμὸς τῶν ἀστέρων τοιούτου βίου μνηστικὸς καθέστηκεν, πάντως οὐχ ἅπαξ ἐφ' ἐνὸς ἀλλὰ πολλάκις ἐπὶ
 105 πολλῶν παρετηρήθη. ἐπεὶ οὖν ὁ αὐτὸς τῶν ἀστέρων συσχηματισμὸς διὰ μακρῶν, ὡς φασί, χρόνων θεωρεῖται, ἀποκαταστάσεως γινομένης τοῦ μεγάλου ἐνιαυτοῦ δι' ἐννεακισχιλίων ἑνακοσίων καὶ ἑβδομήκοντα καὶ ἑπτὰ ἔτων, οὐ φθάσει ἀνθρωπίνη γήρσις τοῖς τοσοῦτοις αἰῶσι συνδραμεῖν ἐπὶ μιᾷ γενέσεως, καὶ ταῦτα οὐχ ἅπαξ ἀλλὰ πολλάκις ἦτοι

^a Cf. § 95.

^b These are used as "stock names" (as we might say

is straight-haired, bright-eyed, and white-skinned,^a it must follow that none of the Ethiopians has the Virgin for horoscope, else they will be granting that an Ethiopian is white, bright-eyed and straight-haired, which is of all things the most absurd.—And 103 in general, since they declare that it is not the stars that inform them of the differences in men's lives but they themselves observe them together with the positions of the stars, I affirm that if the prediction is to be reliable, the same position of the stars ought not to be observed once only in connexion with the life of some one person, but a second time with a second life, and a third time with a third, so that from the equality of the resultant effects in all the cases we might learn that when the stars have assumed a certain configuration the result will certainly be of one particular kind; and just as in medicine we have observed that 104 a puncture of the heart is the cause of death, after having observed together with it not only the death of Dion but also of Theon and Socrates^b and many others, so also in astrology, if it is credible that this particular configuration of the stars is indicative of that particular kind of life, then it certainly has been observed not once only in one single case but many times in many cases. Since, then, the same con- 105 figuration of the stars is seen, as they say, at long intervals—the recurrence of "The Great Year"^c taking place after 9977 years,—human observation will not succeed in traversing so many centuries even in the case of one nativity, and that, too, when it is interrupted not once but oftentimes, either by the "Smith and Jones and Robinson"); they do not refer to the historical persons named: cf. *Adv. Phys.* i. 269, ii. 289.

^c For various theories of "The Great Year" see Adam's *Republic of Plato*, vol. ii. p. 304.

*(τῆς)*¹ τοῦ κόσμου φθοῶς, εἰρήκασιν ὡς τινες, μεσολαβούσης αὐτήν, ἢ πάντως γε τῆς κατὰ μέρος μεταβολῆς ἐξαφανιζούσης τὸ συνεχές τῆς ιστορικῆς παραδόσεως.

106 Τοσαῦτα μὲν οὖν ἐστὶ καὶ τὰ πραγματικῶς δυνάμενα λέγεσθαι πρὸς τοὺς Χαλδαίους. μεθ' ἃ πάλιν ἀπ' ἄλλης ἀρχῆς σύντομον οὖσαν καὶ τὴν πρὸς τοὺς μουσικούς ζήτησιν ἀποδώσομεν.

destruction of the Universe, as some have declared, or certainly by a partial upheaval which wholly does away with the continuity of historical tradition.

Such, then, are the many valid objections which 106 can be brought against the Chaldeans. After which, making a fresh start, we shall set out our criticism—which is brief—of the Musicians.

¹ *(τῆς)* add. cj. Bekk.

Z

ΠΡΟΣ ΜΟΥΣΙΚΟΥΣ

- 1 Ἡ μουσικὴ λέγεται τριχῶς, καθ' ἓνα μὲν τρόπον ἐπιστήμη τις περὶ μελωδίας καὶ φθόγγους καὶ ῥυθμοποιίας καὶ τὰ παραπλήσια καταγιγνομένη πράγματα, καθὸ καὶ Ἀριστόξενον τὸν Σπινθάρου λέγομεν εἶναι μουσικόν, καθ' ἕτερον δὲ ἢ περὶ ὀργανικὴν ἐμπειρία,¹ ὡς ὅταν τοὺς μὲν αὐλοῖς καὶ ψαλτηρίοις χρωμένους μουσικοὺς ὀνομάζωμεν, τὰς δὲ ψαλτρίας μουσικάς. ἀλλὰ κυρίως κατὰ ταῦτα² τὰ σημαίνόμενα καὶ παρὰ πολλοῖς λέγεται μουσική·
 2 καταχρηστικώτερον δὲ ἐνίοτε προσαγορεύειν εἰώθαμεν τῷ αὐτῷ ὀνόματι καὶ τὴν ἐν τινι πράγματι κατόρθωσιν. οὕτω γοῦν μεμουσωμένον τι ἔργον φαιμέν, κἂν ζωγραφίας μέρος ὑπάρχη, καὶ μεμουσῶσθαι τὸν ἐν τούτῳ κατορθώσαντα ζωγράφον.
 3 ἀλλὰ δὴ κατὰ τοσοῦτους τρόπους νοουμένης τῆς μουσικῆς, πρόκειται νῦν ποιεῖσθαι τὴν ἀντίρρησην οὐ μὰ Δία πρὸς ἄλλην τινὰ ἢ πρὸς τὴν κατὰ τὸ πρῶτον νοουμένην σημαίνόμενον· αὕτη γὰρ καὶ ἐντελεστάτη παρὰ τὰς ἄλλας μουσικάς δοκεῖ καθ-
 4 εσσηκέναι. τῆς δὲ ἀντιρρήσεως, καθάπερ καὶ ἐπὶ

¹ ἐμπειρία cj. Bekk. : ἐμπειρίαν mss., Bekk.

² κατὰ ταῦτα cj. Bekk. : κατ' αὐτὰ mss., Bekk.

BOOK VI

AGAINST THE MUSICIANS

THE term " Music " is used in three senses ; in one 1 as a science dealing with melodies and notes and rhythm-making and similar things, in which sense we say that Aristoxenus,^a son of Spintharus, was a musician ; in another sense it connotes instrumental skill, as when we describe those who use flutes and harps as musicians and female harp-players as musicians. It is with these significations that the 2 term " Music " is properly and generally used. But it is sometimes our habit to apply the same name in a loose sense to correctness in some performance. Thus we speak of a work as " musical," even though it be a piece of painting, and of the painter who has achieved therein correctness as " musical." While 3 music, then, is conceived in all these ways, it is certainly not our present purpose to frame our refutation of it if conceived in any other way than that first signified ; for Music in this sense, as compared with the other kinds, seems to be the most perfect. And, as in the case of Grammar, the 4

^a Aristoxenus of Tarentum, *circa* 320 B.C., was a musician and disciple of Aristotle.

γραμματικῆς, διττόν ἐστὶ τὸ εἶδος. οἱ μὲν οὖν
 δογματικώτερον ἐπεχείρησαν διδάσκειν ὅτι οὐκ ἀνα-
 γκαῖόν ἐστι μάθημα πρὸς εὐδαιμονίαν μουσική,
 ἀλλὰ βλαπτικὸν μᾶλλον, καὶ τοῦτο δείκνυσθαι ἔκ-
 τε τοῦ διαβάλλεσθαι τὰ πρὸς τῶν μουσικῶν λεγόμε-
 να καὶ ἐκ τοῦ τοὺς προηγουμένους λόγους ἀνα-
 5 σκευῆς ἀξιούσθαι· οἱ δὲ ἀπορητικώτερον πάσης
 ἀποστάντες τῆς τοιαύτης ἀντιρρήσεως ἐν τῷ σα-
 λεύειν τὰς ἀρχικὰς ὑποθέσεις τῶν μουσικῶν
 6 ᾤθησαν καὶ τὴν ὅλην ἀνηρῆσθαι μουσικὴν. ὅθεν
 καὶ ἡμεῖς ὑπὲρ τοῦ μὴ δοκεῖν τι τῆς διδασκαλίας
 χρεωκοπεῖν, τὸν ἑκατέρου δόγματος ἢ πράγματος
 χαρακτήρα κεφαλαιωδέστερον ἐφοδεύσομεν, μήτε
 ἐν τοῖς παρέλκουσιν ὑπερεκπίπτοντες εἰς μακρὰς
 διεξόδους μήτε ἐν τοῖς ἀναγκαιοτέροις ὑστεροῦντες
 πρὸς τὴν τῶν ἐπειγόντων ἔκθεσιν, ἀλλὰ μέσην
 καὶ μεμετρημένην κατὰ τὸ δυνατὸν ποιούμενοι τὴν
 διδασκαλίαν.

7 Τάξει δὲ ἀρχέτω πρῶτον τὰ ὑπὲρ μουσικῆς εἰω-
 θότα παρὰ τοῖς πολλοῖς θρυλεῖσθαι. εἴπερ τοίνυν,
 φασί, φιλοσοφίαν ἀποδεχόμεθα σωφρονίζουσαν τὸν
 ἀνθρώπινον βίον καὶ τὰ ψυχικὰ πάθη καταστέλ-
 λουσαν, πολλῶ μᾶλλον ἀποδεχόμεθα¹ τὴν μουσι-
 κήν, ὅτι οὐ βιαστικώτερον ἐπιτάττουσα ἡμῖν ἀλλὰ
 μετὰ θελγούσης τινὸς πειθοῦς τῶν αὐτῶν ἀπο-
 τελεσμάτων περιγίνεται ὧν περ καὶ ἡ φιλοσοφία.
 8 ὁ γοῦν Πυθαγόρας μεῖράκια ὑπὸ μέθης ἐκβεβακ-
 χειμένα ποτὲ θεασάμενος ὡς μηδὲν τῶν μεμνητότων
 διαφέρειν, παρήνεσε τῷ συνεπικωμάζοντι τούτοις
 αὐλητῇ τὸ σπονδεῖον αὐτοῖς ἐπαυλῆσαι μέλος· τοῦ
 δὲ τὸ προσταχθέν ποιήσαντος οὕτως αἰφνίδιον

¹ ἀποδεχόμεθα cj. Bekk. : ἀποδεχόμεθα mss., Bekk.

refutation is of two kinds. Some have tried in a
 dogmatical way to show that Music is a subject not
 necessary for happiness, but harmful rather, and to
 prove this both by finding fault with the statements
 made by the Musicians and by claiming to refute
 their leading arguments; whereas others, avoiding
 5 all that sort of refutation, have held, in more sceptical
 fashion, that through the wrecking of the principal
 assumptions of the Musicians the whole of Music is
 likewise destroyed. Accordingly, in order to avoid
 6 the appearance of cutting down at all our debt of
 exposition, we shall discuss in summary fashion the
 character of each of these dogmas or operations,
 neither divagating into long disquisitions regarding
 irrelevant matters, nor, as regards such as are relevant,
 failing to give a full account of the pressing
 points, but making our exposition as moderate and
 measured as possible.

First in order, let us state the views commonly ex-
 7 pressed concerning Music by the majority of people.
 If, they say, we welcome Philosophy as regulating
 human life and repressing the passions of the soul,
 much more shall we welcome Music because it produces
 the same results as Philosophy not by commanding us
 in a violent manner but by means of a seductive per-
 suasiveness. Thus Pythagoras, having noticed on
 8 one occasion that the youths who were in a state of
 Bacchic frenzy from drunkenness differed not at all
 from madmen, advised the flute-player who was with
 them in their revels to play them the "spondean"
 tune^a; and when he had done as instructed, they

^a The sort of slow, solemn melodies used at *spondai*
 "libations").

μεταβαλεῖν σωφρονισθέντας ὡς εἰ καὶ τὴν ἀρχὴν
 9 ἔνηφον. οἱ τε τῆς Ἑλλάδος ἠγούμενοι καὶ ἐπ'
 ἀνδρία διαβόητοι Σπαρτιάται μουσικῆς αἰεὶ ποτε
 στρατηγούσης αὐτῶν ἐπολέμουν. καὶ οἱ ταῖς
 Σόλωνος χρώμενοι παραιέσεσι πρὸς αὐτὸν καὶ
 10 ἐνόπλιον κίνησιν. καὶ μὴν ὥσπερ σωφρονίζει μὲν
 τοὺς ἄφρονας ἢ μουσική, εἰς ἀνδρίαν δὲ προτρέπει
 τοὺς δειλοτέρους, οὕτω καὶ παρηγορεῖ τοὺς ὑπ'
 ὀργῆς ἐκκαίωμένους. ὀρώμεν γοῦν ὡς καὶ ὁ παρὰ
 τῷ ποιητῇ μνηίων Ἀχιλλεύς καταλαμβάνεται ὑπὸ
 τῶν ἐξαποσταλέντων πρεσβευτῶν

φρένα τερπόμενος φόρμυγι λιγείῃ
 καλῇ δαιδαλέῃ· ἐπὶ δ' ἀργύρεον ζυγὸν ἦεν.
 τὴν ἔλετ' ἐξ ἐνάρων, πόλιν Ἡετίωνος ὀλέσσας.
 τῇ ὃ γε θυμὸν ἔτερπεν

ὡς ἂν σαφῶς γινώσκων τὴν μουσικὴν πραγματεῖαν
 μάλιστα δυναμένην περιγίνεσθαι τῆς περὶ αὐτὸν
 11 διαθέσεως. καὶ μὴν δι' ἔθους ἦν καὶ τοῖς ἄλλοις
 ἥρωσιν, εἴ ποτε ἀποδημοίεν καὶ μακρὸν πλοῦν
 στέλλοιντο, ὡς πιστοτάτους φύλακας καὶ σω-
 φρονιστήρας τῶν γυναικῶν αὐτῶν ἀπολείπειν τοὺς
 μουσικούς. Κλυταιμνήστρα γέ τοι παρῆν αἰοῖδος,
 12 ᾧ πολλὰ ἐπέτελλεν Ἀγαμέμνων περὶ τῆς κατὰ
 ταύτην σωφροσύνης. ἀλλ' ὁ Αἰγισθος πανοῦργος
 ὦν αὐτίκα τὸν αἰοῖδὸν τοῦτον

ἄγων εἰς νῆσον ἐρήμην
 κάλλιπεν οἰωνοῖσιν ἔλωρ καὶ κύρμα γενέσθαι·

* i.e. the Athenians.

suddenly changed and became sober just as if they
 had been sober from the beginning. The Spartans, 9
 too, the leaders of Hellas and renowned for their
 bravery, always had music to lead their army when
 they went to war. And those ^a who followed the
 counsels of Solon formed up their ranks to the sound
 of the flute and the lyre and made their movements
 10 under arms rhythmical.^b Moreover, as Music gives 10
 sober sense to those lacking in sense and incites the
 cowards to courage, so also it calms down those who
 are burning with anger. Thus we see how Achilles
 in his rage (as the poet describes him) is found by the
 messengers who had been sent to him ^c—

Giving delight to his soul with the tuneful notes of his
 zither;
 Goodly and cunningly wrought it was, with its cross-bar
 of silver,
 Which he did choose from the spoils when he sack'd
 Etion's city.

With this now he was soothing his soul,—

—as if he knew full well that the practice of music
 was the thing best able to overcome his state of
 mind. Furthermore, it was customary for the other 11
 heroes, whenever they left home and set out on a long
 voyage, to leave the musicians behind as being the
 most trusty guardians and controllers of their wives.
 Thus Clytaemnestra was accompanied by a minstrel,
 to whom Agamemnon gave strict orders regarding
 the chastity of his wife.^d But Aegisthus, who was a 12
 crafty rascal, straightway took this minstrel

Unto a desolate island,
 There did he leave him a prey to become and a spoil to the
 vultures;

^a The rhythm of war songs and dances was that of the
 "Cretic" (— —) or "Paeon" (— — —).

^b Cf. Hom. *Il.* ix. 186 ff. ^d Cf. Hom. *Od.* iii. 267 ff.

εἶθ' οὕτως ἀφύλακτον λαβὼν τὴν Κλυταιμνήστραν
διέφθειρεν, προτρεψάμενος αὐτὴν ἐπιθέσθαι τῇ
13 ἀρχῇ τοῦ Ἀγαμέμνονος. οἱ τε μέγα δυνηθέντες
ἐν φιλοσοφίᾳ, καθάπερ καὶ Πλάτων, τὸν σοφὸν
ὁμοίον φασιν εἶναι τῷ μουσικῷ, τὴν ψυχὴν ἡρμο-
σμένην ἔχοντα. καθὼ καὶ Σωκράτης καίπερ βαθυ-
γῆρως ἤδη γεγονώς οὐκ ἠδεῖτο πρὸς Λάμπωνα τὸν
κιθαριστὴν φοιτῶν, καὶ πρὸς τὸν ἐπὶ τούτῳ ὄνει-
14 δίσαντα λέγειν ὅτι κρεῖττόν ἐστιν ὀψιμαθῆ μάλλον
ἢ ἀμαθῆ διαβάλλεσθαι. οὐ χρὴ μέντοι, φασίν, ἀπὸ
τῆς νῦν ἐπιτρίπτου καὶ κατεαγυίας μουσικῆς τὴν
παλαιὰν διασύρειν, ὅτε καὶ Ἀθηναῖοι πολλὴν πρό-
νοιαν σωφροσύνης ποιούμενοι καὶ τὴν σεμνότητα
τῆς γε μουσικῆς κατελιφότες ὡς ἀναγκαϊότατον
15 αὐτὴν μάθημα τοῖς ἐκγόνοις παρεδίδουσαν. καὶ
τούτου μάρτυς ὁ τῆς ἀρχαίας κωμωδίας ποιητής,
λέγων

λέξω τοῖνυν βίον ἐξ ἀρχῆς ὃν ἐγὼ θνητοῖσι
παρεῖχον.

πρότερον γὰρ ἔδει παιδὸς φωνὴν γρύσαντος
μηδέν' ἀκοῦσαι,

εἶτα βαδίζειν ἐν ταῖσιν ὁδοῖς εὐτάκτως ἐς κιθα-
ριστοῦ.

ὄθεν εἰ καὶ κεκλασμένοις τισὶ μέλεσι νῦν καὶ γυ-
ναικῶδεσι ῥυθμοῖς θηλύνει τὸν νοῦν ἢ μουσική,
οὐδὲν τοῦτο πρὸς τὴν ἀρχαίαν καὶ ἑπανδρον μου-
16 σικήν. εἴπερ τε ἡ ποιητικὴ βιωφελὴς ἐστὶ, ταύτην
δὲ φαίνεται κοσμεῖν ἢ μουσικὴ μελίζουσα καὶ
ἐπωδὸν παρέχουσα, χρεῖώδης γενήσεται ἢ μου-
σική. ἀμέλει γέ τοι καὶ οἱ ποιηταὶ μελοποιοῖ

* Cf. Plato, *Rep.* 410 E, 443 E, 554 E.

and then he took Clytaemnestra, who was now without
a protector, and seduced her, having urged her to seize
Agamemnon's dominion. Those also who have been 13
men of great ability in philosophy, such as Plato, say
that the sage resembles the musician as he has his
soul "harmonized." ^a Accordingly, Socrates, though
he was already far gone in years, was not ashamed
of going to get lessons from Lampon the lyre-player,
and in reply to one who jeered at him for this he said
that it was better to be accused of being late-learned
than unlearned.—Nor indeed, they say, ought we 14
to run down the ancient music because the present-
day music is hackneyed and effeminate, when the
Athenians, who devote great care to temperance,
appreciating the dignity of music have handed it
down to their descendants as a most necessary branch
of learning. A witness to this is the poet of the Old 15
Comedy,^b who says—

I will now relate from the start the life which I have pro-
vided for mortals.

The first rule was that none should hear from an urchin
the sound of a mutter,

Next, they must walk in order good on their way to their
master of music.

Hence, even if music now weakens the mind by its
effeminate tunes and womanish rhythms, this is no
argument against the ancient and virile music.—
Also, if poetry is useful for life,^c and music appears to 16
adorn it by its melodies and and by making it fit
for singing, then music will be beneficial. And, of
course, the poets^d are called "tune-makers," and of

^b V. 1 comes from Telecleides (*ap.* Athen. vi. p. 268 b), vv.
2, 3, from Aristoph. *Nub.* 963 f.

^c Cf. *Adv. Gram.* 272 ff.

^d i.e. lyric (or "melic") poets, like Pindar.

λέγονται, καὶ τὰ Ὀμήρου ἔπη τὸ πάλαι πρὸς λύραν
 17 ἦδ' ἔδοτο· ὡσαύτως δὲ καὶ τὰ παρὰ τοῖς τραγικοῖς
 μέλη καὶ στάσιμα, φυσικὸν τινα ἐπέχοντα λόγον,
 ὅποιά ἐστι τὰ οὕτω λεγόμενα,

γαῖα μεγίστη καὶ Διὸς αἰθῆρ,
 ὃ μὲν ἀνθρώπων καὶ θεῶν γενέτωρ,
 ἢ δ' ὑγροβόλους σταγόνας νοτίας
 παραδεξαμένη τίκτει θνατούς,
 τίκτει δὲ βορὰν φύλα τε θηρῶν,
 ὅθεν οὐκ ἀδίκως
 μήτηρ πάντων νενόμισται.

18 καθόλου γὰρ οὐ μόνον χαιρόντων ἐστὶν ἄκουσμα,
 ἀλλ' ἐν ὕμνοις καὶ εὐωχίαις καὶ θεῶν θυσίαις ἢ
 μουσικῇ· διὰ δὲ τοῦτο καὶ ἐπὶ τὸν τῶν ἀγαθῶν
 ζῆλον τὴν διάνοιαν προτρέπεται. ἀλλὰ καὶ λυπου-
 μένων παρηγόρημα· ὅθεν καὶ τοῖς πενθοῦσιν αὐλῶ¹
 μελωδοῦσιν οἱ τὴν λύπην αὐτῶν ἐπικουφίζοντες.

19 Τοιαῦτα μὲν ὑπὲρ μουσικῆς· λέγεται δὲ πρὸς
 ταῦτα τὸ μὲν πρῶτον ὅτι οὐκ ἔστιν ἐκ προχείρου
 διδόμενον τὸ φύσει τῶν μελῶν τὰ μὲν εἶναι διεγερ-
 τικά τῆς ψυχῆς τὰ δὲ κατασταλτικά. παρὰ γὰρ
 τὴν ἡμετέραν δόξαν τὸ τοιοῦτο γίνεται. ὡσπερ
 γὰρ ὁ τῆς βροντῆς κτύπος, καθά φασιν Ἐπικου-
 ρείων παῖδες, οὐ θεοῦ τινὸς ἐπιφάνειαν σημαίνει
 ἀλλὰ τοῖς ἰδιώταις καὶ δεισιδαίμοσι τοιοῦτος εἶναι
 20 δοξάζεται, ἐπεὶ καὶ ἄλλων σωμάτων ἐπ' ἴσης ἀλ-
 λήλοις προσκρουσάντων ὁμοῖος ἀποτελεῖται κτύ-
 πος, ὡσπερ καὶ μύλου περιεχομένου ἢ χειρῶν
 συμπαταγουσῶν, τὸν αὐτὸν τρόπον καὶ τῶν κατὰ
 μουσικὴν μελῶν οὐ φύσει τὰ μὲν τοιαῦτα ἐστὶ τὰ δὲ
 τοιαῦτα, ἀλλ' ὑφ' ἡμῶν προσδοξάζεται. τὸ αὐτὸ γούιν

old the verses of Homer were sung to the lyre. So 17
 likewise were the songs and choral odes of the tragic
 poets, preserving a natural relation, such as are those
 in verses like these ^a—

Mightiest Earth and Aether of Heaven,—He of mortal
 men and of gods is the Sire,
 She takes to her bosom the drippings of rain, And she
 bears as her offspring mortal men,
 And food does she bear, herds too of wild-beasts ;
 Wherefore not without cause Mother of all is she deemed.

For, in sum, music is not only a sound of rejoicing, 18
 but is heard also in sacred hymns and feasts and
 sacrifices to the gods ; and because of this it incites
 the mind to emulate the good. It is, too, a consol-
 ation to those in grief ; and for this reason those who
 are trying to lighten the grief of mourners sing for
 them to the flute.

Such are the arguments in defence of music ; but 19
 in reply to these it is argued, firstly, that it is not
 conceded off-hand that some tunes are in their
 nature stimulating, others repressive. For such a
 thing is contrary to our belief. For just as a clap
 of thunder—as the Epicurean fraternity declare ^b—
 does not betoken the epiphany of a god, though
 supposed to do so by ignorant and superstitious folk,
 since a similar clap is produced by other bodies clash- 20
 ing together in the same way, as by a mill-stone
 revolving or the clapping of hands, so likewise in the
 case of musical tunes it is not by nature that some are
 of this kind and others of that kind, but it is we our-
 selves who suppose them to be such. Thus the same

^a Cf. Eurip. *Frag.* 836 (Nauck).

^b Cf. Lucret. vi. 96 ff.

¹ αὐλῶ scripsi : αὐλοῖ mss., Bekk. (αὐλοῖς Heintz).

μέλος τῶν μὲν ἵππων διεγερτικόν ἐστι, τῶν δὲ ἀνθρώπων ἐν θεάτροις ἀκουόντων οὐδαμῶς. καὶ τῶν ἵππων δὲ τάχα οὐ διεγερτικόν ἐστὶν ἀλλὰ
 21 ταρακτικόν. εἶτα κὰν τοιαῦτα ἢ τὰ τῆς μουσικῆς μέλη, οὐ διὰ τοῦτο καὶ ἡ μουσικὴ βιωφελὴς καθέστηκεν. οὐ γὰρ ὅτι δύναμιν ἔχει σωφρο-
 νιστικὴν, καταστέλλει τὴν διάνοιαν, ἀλλ' ὅτι¹ περισπαστικὴν· παρὸ καὶ ἡσυχασθέντων πως τῶν τοιοῦτων μελῶν πάλιν ὁ νοῦς, ὡς ἂν μὴ θερα-
 22 διάνοιαν. ὄνπερ οὖν τρόπον ὁ ὕπνος ἢ ὁ οἶνος οὐ λύει τὴν λύπην ἀλλ' ὑπερτίθεται, κάρων ἐμποιῶν καὶ ἔκλυσι καὶ λήθην, οὕτω τὸ ποιὸν μέλος οὐ καταστέλλει λυπούμενην ψυχὴν ἢ περὶ ὀργὴν σεσοβημένην τὴν διάνοιαν, ἀλλ' εἶπερ, περισπᾶ.
 23 ὁ τε Πυθαγόρας τὸ μὲν πρῶτον μάταιος ἦν, τοὺς μεθύοντας ἀκαίρως σωφρονίζειν βουλόμενος ἀλλὰ μὴ ἐκκλίνων· εἶτα καὶ τούτω τῷ τρόπῳ ἐπανορθούμενος αὐτοὺς ὁμολογεῖ πλείον τι δύνασθαι τῶν φιλοσόφων πρὸς ἐπανόρθωσιν ἡθῶν τοὺς ἀλητάς.
 24 τό τε τοὺς Σπαρτιάτας πρὸς αὐλὸν καὶ λύραν πολεμεῖν τοῦ μικρῶ πρότερον εἰρημένου τεκμηρίον ἐστὶν, ἀλλ' οὐχὶ τοῦ βιωφελῆ τυγχάνειν τὴν μουσικὴν. καθάπερ δ' οἱ ἀχθοφοροῦντες ἢ ἐρέσσοντες ἢ ἄλλο τι τῶν ἐπιπόνων δρῶντες ἔργων κελεύουσιν εἰς τὸ ἀνθέλκειν τὸν νοῦν ἀπὸ τῆς κατὰ τὸ ἔργον βασάνου, οὕτω καὶ <οἱ>² αὐλοῖς ἢ σάλπιγξιν ἐν πολέμοις χρώμενοι οὐ διὰ τὸ ἔχειν τι τῆς διανοίας ἐπεγερτικόν τὸ μέλος καὶ ἀνδρικοῦ λήματος αἴτιον ὑπάρχειν τοῦτο ἐμηχανήσαντο, ἀλλ' ἀπὸ τῆς ἀγω-

¹ ἀλλ' ὅτι scripsi : ἀλλὰ ἢ mss., Bekk. (ἀλλὰ ἢ Shorey).

tune serves to excite horses, but not at all to excite men who hear it in a theatre. And even to horses it may prove not exciting but disturbing.—Secondly, 21 even if the tunes of music are of the kind stated, music is not on that account useful for life. For it does not repress the mental state because it possesses a moderating influence, but because its influence is distracting; consequently, when tunes of that sort have ceased to sound, the mind, as though not cured 22 by them, reverts to its original state. Thus, just as sleep or wine does not banish grief but puts it off by inducing torpor and languor and oblivion, so a certain kind of tune does not repress a soul in grief or a mind that is shaken by anger but, if anything, distracts it. And, as to Pythagoras,^a in the first 23 place he was foolish in desiring to render drunkards sober at the wrong moment, instead of quitting the place; and secondly, by trying to reform them in this way he confesses that flute-players have more influence than philosophers for the reforming of morals. Also, the fact that the Spartans^b make war 24 to the sound of flute and lyre is a proof of what was said a little while ago, but not of the usefulness for life of music. And just as men carrying loads or rowing a boat or doing any other toilsome work make rhythmical calls^c in order to divert their minds from the distress caused by their work, so also when men make use of flutes or trumpets in war, it is not because the tune has any power to excite the mind, or because it produces a courageous spirit, that they have employed this device, but through anxiety to divert

^a Cf. § 8.

^b Cf. § 9.

^c e.g. ῥυθμικὰ Aristoph. *Ran.* 1073.

² <οἱ> add. cj. Bekk.

νίας και παραχῆς ἀνθέλκειν ἑαυτοὺς σπουδάσαντες,
 εἶγε καὶ στρόμβοις τινὲς τῶν βαρβάρων βουκνί-
 ζοντες¹ καὶ τυμπάνοις κτυποῦντες πολεμοῦσιν· ἀλλ'
 25 οὐδὲν τούτων ἐπ' ἀνδρίαν προτρέπεται. τὰ δὲ
 αὐτὰ λεκτέον καὶ ἐπὶ τοῦ μηνίοντος Ἀχιλλέως·
 καίτοι ἔρωτικοῦ ὄντος καὶ ἀκρατοῦς οὐ παράδοξον
 26 τὴν μουσικὴν σπουδάζεσθαι. νῆ Δι', ἀλλὰ καὶ
 οἱ ἥρωες τὰς ἑαυτῶν γυναῖκας ᾤδοις τισὶν ὡς
 σώφροσι φύλαξι παρακατετίθεντο, καθάπερ ὁ
 Ἀγαμέμνων τὴν Κλυταιμνήστραν. ταῦτα δὲ ἥδη
 μυθολογούντων ἐστὶν ἀνδρῶν, εἶτα καὶ παρὰ πόδας
 αὐτοὺς διελεγχόντων· πῶς γάρ, εἴπερ μουσικὴ περὶ
 τῆς τῶν παθῶν ἐπανορθώσεως ἐπιστεύετο, τὸν μὲν
 Ἀγαμέμνονα ἢ Κλυταιμνήστρα ἐπὶ τῆς ἰδίας ἐστίας
 κατέκτανεν ὥσπερ βοῦν ἐπὶ φάτῃ, εἰς δὲ τοὺς
 Ὀδυσσεῶς οἴκους ἢ Πηνελόπη ὄχλον ἄσωτον ἐπι-
 δέχεται μειρακίων, αἰεὶ δὲ τὰς ἐπιθυμίας αὐτῶν
 ἐλπιδοκοποῦσα καὶ παραίξουσα μοχθηρότερον καὶ
 χαλεπώτερον τῆς ἐπὶ Ἴλιον στρατείας τὸν ἐν
 27 Ἰθάκῃ πόλεμον ἤγειρε τῷ γήμαντι; καὶ μὴν οὐδ',
 εἰ² οἱ περὶ τὸν Πλάτωνα μουσικὴν ἀπεδέξαντο,
 ῥητέον [οὐ] πρὸς εὐδαιμονίαν αὐτὴν συντίειν,
 ἐπεὶ καὶ μὴ λειπόμενοι τῆς τούτων ἀξιοπιστίας,
 καθάπερ οἱ περὶ τὸν Ἐπίκουρον, ἠρνήσαντο ταύτην
 τὴν ἀντιποίησιν, λέγοντες τοῦναντίον αὐτὴν ἀσύμ-
 φρον εἶναι καὶ

ἀργὴν, φίλοινον, χρημάτων ἀτημελῆ.

28 εὐθήεις δὲ εἰσι καὶ οἱ τὴν ἀπὸ ποιητικῆς χρεῖαν
 συμπλέκοντες αὐτῇ πρὸς εὐχρηστίαν, ἐπεὶπερ δύ-
 νηται μὲν τις, ὡς καὶ ἐν τῷ πρὸς τοὺς γραμματι-

themselves from the struggle and turmoil, seeing that
 some barbarians blow the trumpet with conches
 and beat drums as they make war; but none of
 these practices impels men to bravery. And of Achil-
 25 les^a in his anger the same may be said; although
 for one who was amorous and incontinent it is not
 surprising that he was devoted to music. Yet (say 26
 they) the heroes entrusted their wives, as did
 Agamemnon Clytaemnestra, to minstrels, thinking
 them to be sober-minded guardians. But these, of
 course, are the fictions of story-tellers who at the
 next moment confute themselves; for, if music was
 trusted as a means of rectifying the passions, how
 was it that Clytaemnestra slew Agamemnon on his
 own hearth-stone "like an ox at the stall,"^b and that
 Penelope admits into the halls of Odysseus a crowd
 of dissolute youths^c and by contantly luring on and
 strengthening their desires by false hopes raised up
 for her husband the war in Ithaca which was more
 grievous and bitter than the campaign against Troy?
 Moreover, if Plato^d admitted music, we should not 27
 therefore assert that music contributes to happiness,
 since others who are not inferior to him in trust-
 worthiness,—such as Epicurus,—have denied this
 contention, and declared on the contrary that music
 is unprofitable and

Wine-loving, idle, having no regard for wealth.

Simple-minded, too, are those who link with it 28
 the profit derived from poetry to prove its utility,
 since—as we stated in our book *Against the Gram*

^a Cf. § 10.

^b Cf. Hom. *Od.* xi. 411.

^c *i.e.* Antinoüs and the other "Suitors." ^d Cf. § 13.

¹ βουκνίζοντες *cf.* Bekk. : βουκνίζουσι *MSS.*, Bekk.

² οὐδ' εἰ . . . [οὐ] *Herv.* : εἰ οὔτε . . . οὐ *MSS.*, Bekk.

κοὺς ἐλέγομεν, ἀνωφελῆ διδάσκειν τὴν ποιητικὴν, οὐδὲν δὲ ἔλαττον κάκεινο δεικνύναι ὅτι ἡ μὲν μουσικὴ περὶ μέλος καταγινομένη μόνον τέρπειν πέφυκεν, ἡ δὲ ποιητικὴ καὶ περὶ διάνοιαν καταγινομένη δύναται συνωφελεῖν τε καὶ σωφρονίζειν.

29 Ἄλλ' ὁ μὲν πρὸς τὰ ἐγκεχειρημένα λόγος ἐστὶ τοιοῦτος· προηγουμένως δὲ λέγεται [καὶ] κατὰ μουσικῆς ὡς εἶπερ ἔστι χρειώδης, ἥτοι κατὰ τοῦτο λέγεται χρειοῦν παρόσον ὁ μουσικευσάμενος πλείον παρὰ τοὺς ἰδιώτας τέρπεται πρὸς μουσικῶν ἀκροαμάτων, ἢ παρόσον οὐκ ἔστιν ἀγαθοὺς γενέσθαι 30 μὴ προπαιδευθέντας ὑπ' αὐτῶν, ἢ τῷ τὰ αὐτὰ στοιχεῖα τυγχάνειν τῆς μουσικῆς καὶ <τῆς>¹ τῶν κατὰ φιλοσοφίαν πραγμάτων εἰδήσεως, ὁποῖόν τι καὶ περὶ γραμματικῆς ἀνώτερον ἐλέγομεν, ἢ τῷ κατὰ ἄρμονίαν διοικεῖσθαι τὸν κόσμον, καθὼς φάσκουσι Πυθαγορικῶν παῖδες, δέεσθαί τε ἡμᾶς τῶν μουσικῶν θεωρημάτων πρὸς τὴν τῶν ὅλων εἴδησιν, ἢ τῷ τὰ ποιὰ μέλη ἡθοποιεῖν τὴν ψυχὴν. 31 οὔτε δὲ τῷ τοὺς μουσικοὺς πλείον τέρπεσθαι παρὰ τοὺς ἰδιώτας ἀπὸ τῶν ἀκροαμάτων λέγοιτ' ἀν χρειοῦν ἢ μουσικῆ. πρῶτον μὲν γὰρ οὐκ ἀναγκαῖα ἰδιώταις ἢ τέρψις καθάπερ αἱ ἐπὶ λιμῷ ἢ δίψει ἢ κρύει γινόμεναι ὑπὸ <βρώματος ἢ>² πόματος ἢ 32 ἀλάς· εἴτα κἂν τῶν ἀναγκαίων ὑπάρχωσι, δυνάμεθα χωρὶς μουσικῆς ἐμπειρίας αὐτῶν ἀπολαύειν. νήπια γοῦν ἐμμελοῦς μινυρίσματος κατακούοντα κοιμίζεται, καὶ τὰ ἄλογα τῶν ζώων ὑπὸ αὐλοῦ καὶ σύριγγος κηλεῖται, εἶ γε³ δελφίνες, ὡς λόγος, αὐ-

¹ <τῆς> add. cj. Bekk.

² <βρώματος ἢ> add. Herv., Fabr.

³ εἶ γε scripsi: οἱ τε MSS., Bekk.

marians^a—one can argue that poetry is useless, and prove equally well that while music, being concerned with melody only, naturally serves to give pleasure, poetry which is concerned with thoughts as well, is able to be of benefit and teach prudence.

Such, then, is the line of reasoning against the 29 attempts at defence; but the principal argument against music is that if it is useful it is alleged to be useful on the ground that he who has practised music compared with ordinary people gets more pleasure from hearing musical performances; or on the ground that it is not possible for men to be good unless they have already been trained by musicians; or because 30 the elements of music are the same as those of the science of the subject-matter of philosophy, (which is much like what we previously said about grammar); or because the Universe is ordered according to harmony,^b as the Pythagorean fraternity declare, and we need the theorems of Music in order to understand the Whole of things; or because tunes of a certain kind affect the character of the soul. But it 31 will not be stated that music is useful because musicians as compared with ordinary people get more pleasure from listening to performances. For, firstly, the pleasure felt by ordinary people is not inevitable as are those caused by food, drink and warmth after hunger, thirst and cold; and secondly, even if they 32 are inevitable we can enjoy them without musical skill; infants, certainly, are lulled to sleep by listening to a tuneful cradle-song, and irrational animals are charmed by the sound of the flute and pipe, seeing that dolphins, as we are told, swim up to ships as they

^a Cf. Adv. Gram. 277 ff., 297 ff.

^b Cf. Adv. Arithm. 3.

λῶν μελωδίαις τερπόμενοι προσνήχονται τοῖς ἔρρο-
 33 σομένοις σκάφειν· ὧν οὐδὲ ὁπότερον ἔοικε μου-
 σικῆς ἔχειν ἐμπειρίαν ἢ ἔννοιαν. καὶ διὰ τοῦτο
 μὴ ποτε, ὃν τρόπον χωρὶς οὐαρτυτικῆς καὶ οἰνο-
 γευστικῆς ἠδόμεθα ὄψου ἢ οἴνου γευσάμενοι, ὦδε
 καὶ χωρὶς μουσικῆς ἠσθεῖν ἂν τερπνοῦ μέλους
 ἀκούσαντες, τοῦ μὲν ὅτι τεχνικῶς γίνεται (τοῦ
 τεχνίτου)¹ μᾶλλον παρὰ τὸν ἰδιώτην ἀντιλαμβανό-
 34 μενου, τοῦ δὲ πλείον² ἠστικοῦ πάθους μηδὲν κερ-
 δαίνοντος. ὥστε οὐχ αἰρετὸν μουσικὴ παρόσον τοὺς
 εἰδήμονας αὐτῆς ἐπὶ πλείον τέρπεσθαι συμβέβηκεν.
 καὶ μὴ οὐδὲ τῷ προοδοποιεῖν τὴν ψυχὴν εἰς σοφίαν·
 ἀνάπαυτον γὰρ ἀντικόπτει καὶ ἀντιβαίνει πρὸς τὸ
 τῆς ἀρετῆς ἐφίεσθαι, εὐαγώγουσιν εἰς ἀκολασίαν καὶ
 35 λαινεῖαν παρασκευάζουσα τοὺς νέους, ἐπεὶ περ ὁ
 μουσικευσάμενος

μολπαῖσιν ἠσθεῖς τοῦτ' αἰεὶ θηρέεται.
 ἀργὸς μὲν οἴκοις καὶ πόλει γενήσεται,
 φίλοισι δ' οὐθείς, ἀλλ' ἀφαντος οἴχεται,
 ὅταν γλυκείας ἠδονῆς ἠσσωσιν τις ἦ.

36 κατὰ ταῦτα δὲ οὐδὲ (ἐκ τοῦ)³ ἀπὸ τῶν αὐτῶν στοι-
 χείων ὀρμάσθαι ταύτην τε καὶ φιλοσοφίαν εἰσ-
 ακτέον τὸ κατ' αὐτὴν χρεῖωδες, ὡς αὐτόθεν ἐστὶ
 συμφανές. λείπεται ἄρα τῷ καθ' ἁρμονίαν τὸν κό-
 σμον διοικεῖσθαι ἢ τῷ ἠθοποιοῖς μέλεσι κεχρηῆσθαι
 χρεῖωδη πρὸς εὐδαιμονίαν λέγειν αὐτὴν τυγχάνειν.
 ὧν τὸ μὲν τελευταῖον ἤδη διαβέβληται ὡς οὐχ
 37 ὑπάρχον ἀληθές, τὸ δὲ κατὰ ἁρμονίαν διοικεῖσθαι

¹ (τοῦ τεχνίτου) . . . ἀντιλαμβανόμενου . . . κερδαίνοντος
 Heintz : ἀντιλαμβανόμενοι . . . κερδαίνοντες mss., Bekk.

² πλείον cj. Bekk., Heintz : πλείω mss., Bekk.

³ (ἐκ τοῦ) add. cj. Bekk.

are being rowed along because of the pleasure they
 take in the tunes played by flutes^a; yet neither the
 infants nor the animals are likely to have skill in
 music or understanding of it. And for this reason it
 33 may be that, just as we enjoy tasting food or wine
 though without the art of cooking food or that of
 wine-tasting, so also, though without the art of music,
 we take pleasure in hearing a delightful melody; for
 though the expert musician understands that it is
 artistically performed better than the ordinary man,
 he gets from it no greater feeling of pleasure. So
 34 that music is not choiceworthy on the ground that
 those who understand it receive in consequence more
 pleasure.—Nor yet because it prepares and leads on
 the soul to wisdom; for, on the contrary, it resists
 and opposes the striving after virtue, making young
 people easily led into incontinence and debauchery,
 seeing that he who cultivates music^b—

In songs delighting makes this always his pursuit. 35
 When'er a man is master'd by sweet pleasure's charm
 At home he will be idle, idle too in town,
 To friends no friend, he speeds away and disappears.—

In the same way, the usefulness of music must not be
 36 inferred (as is obvious at once) from the fact that it and
 philosophy are derived from the same elements.^c—
 It only remains, then, to say that it is useful for
 happiness because the Universe is ordered according
 to harmony, or because it employs tunes which form
 character. But the last of these reasons has already
 been denounced^d as not being true, and that the 37

^a So dolphins are called *φλαυλοι*, "flute-loving," in Eurip.
Electra 435.

^b Cf. Eurip. *Antiope* (*Frag.* 187, vv. 3 ff. Nauck).

^c Cf. § 30. ^d Cf. § 28.

τὸν κόσμον ποικίλως δείκνυται ψεῦδος, εἶτα καὶ ἂν ἀληθὲς ὑπάρχη, οὐδὲν τοιοῦτον δύναται πρὸς μακαριότητα, καθάπερ οὐδὲ ἢ ἐν τοῖς ὄργανοις ἄρμονία.

38 Ἀλλὰ τὸ μὲν πρῶτον εἶδος τῆς πρὸς τοὺς μουσικοὺς ἀντιρρήσεως τοιούτοτρόπον ἔστιν, τὸ δὲ δεύτερον καὶ τῶν τῆς μουσικῆς ἀρχῶν καθαπτόμενον πραγματικώτερας μᾶλλον ἔχειται ζητήσεις. οἷον ἐπεὶ ἡ μουσικὴ ἐπιστήμη τίς ἐστὶν ἐμμελῶν τε καὶ ἐκμελῶν ἐνρhythμων τε καὶ ἐκρhythμων, πάντως εἰδὼς ἐὰν δείξωμεν ὅτι οὔτε τὰ μέλη ὑποστατά ἐστὶν οὔτε οἱ ρhythμοὶ τῶν ὑπαρκτῶν πραγμάτων τυγχάνουσιν, ἐσόμεθα παρεστακότες καὶ τὴν μουσικὴν ἀνυπόστατον. λέγωμεν δὲ πρῶτον περὶ μελῶν καὶ τῆς τούτων ὑποστάσεως, μικρὸν ἄνωθεν καταρξάμενοι.

39 Φωνὴ τοίνυν ἐστίν, ὡς ἂν τις ἀναμφισβητήτως ἀποδοίη, τὸ ἴδιον αἰσθητὸν ἀκοῆς· καθάπερ γὰρ μόνης ὁράσεως ἔργον ἐστὶ τὸ χρωμάτων ἀντιλαμβάνεσθαι καὶ μόνης ὁσφρήσεως τὸ εὐωδῶν καὶ δυσωδῶν ἀντιποιεῖσθαι καὶ ἥδη γεύσεως τὸ γλυκεῶν ἢ πικρῶν αἰσθάνεσθαι, οὕτω γένοιτ' ἂν ἴδιον αἰσθητὸν ἀκοῆς ἢ φωνῆς. τῆς δὲ φωνῆς ἢ μὲν τίς 40 ἐστὶν ὀξεῖα ἢ δὲ βαρεῖα, μεταφορικώτερον ἀπὸ τῶν περὶ τὴν ἀφήν αἰσθητῶν ἐκατέρου τούτων λαμβάνοντος τὴν προσηγορίαν· καθάπερ γὰρ τὸ κεντοῦν καὶ τέμνον τὴν ἀφήν ὀξύ προσηγόρευσεν ὁ βίος καὶ τὸ θλάσιν ἐμποιοῦν καὶ πιέζον βαρῦ, τὸν αὐτὸν τρόπον καὶ τῆς φωνῆς τὴν μὲν οἰονεῖ τέμνουσαν τὴν ἀκοῆν ὀξεῖαν, τὴν δὲ ὡσπερ θλώσαν βαρεῖαν.

41 καὶ οὐ ξένον εἰ ὡσπερ φαῖαν τινα καὶ μέλαιναν καὶ λευκὴν φωνῆν ἀπὸ τῶν πρὸς τὴν ὄρασιν αἰσθητῶν

Universe is ordered according to harmony is shown to be false by a variety of proofs ; and further, even if it be true, a thing of this kind can be of no help towards felicity, just as the harmony in instruments is of no help.

38

Such, then, is the first kind^a of argumentation against the Musicians : the second kind, which deals with the principles of music, involves an inquiry of a more practical nature. Thus, since Music is a science of what is "in tune" and "out-of-tune," "in rhythm" and "out-of-rhythm," if we shall prove that neither are tunes existent nor rhythms realities, then we shall certainly have established that Music is non-existent. And first let us discuss tunes and their existence, starting with some preliminary matters.

Now sound, as one will grant without dispute, is the 39 sense-object peculiar to hearing ; for as it is the task of vision alone to perceive colours, and of smell alone to apprehend odours good and bad, and of taste to sense sweet things and bitter, so sound will be the proper sense-object of hearing. And of sound one 40 kind is "sharp," another "grave," each of these deriving its name by transference from the sense-objects of touch ; for just as custom has given the name of "sharp" to what pricks or cuts the sense of touch, and "grave" to that which causes crushing and compresses, in the same way it calls the sound which cuts, as it were, the hearing "sharp," and that which crushes it, as it were, "grave." Nor is it 41 strange if, just as we describe sounds as grey or black or white, calling them after the sense-objects of

^a For the two kinds cf. §§ 4, 5.

κεκλήκαμεν, ὧδε καὶ ἀπὸ τῶν πρὸς τὴν ἀφήν
 ἐχρησάμεθά τισι μεταφοραῖς. ὅταν μὲν οὖν ἐπ'
 ἴσης ἐκφέρηται ἢ φωνὴ καὶ ὑπὸ μίαν τάσιν, ὡς
 μηδένα περισπασμὸν γίνεσθαι τῆς αἰσθήσεως ἤτοι
 ἐπὶ τὸ βαρύτερον ἢ τὸ ὀξύτερον, τότε ὁ τοιοῦτος
 42 ἤχος φθόγγος καλεῖται, παρὰ καὶ οἱ μουσικοὶ ὑπο-
 γράφοντές φασι "φθόγγος ἐστὶν ἐμμελοῦς φωνῆς
 πᾶσις ὑπὸ μίαν τάσιν." τῶν δὲ φθόγγων οἱ μὲν
 εἰσιν ὁμόφωνοι οἱ δὲ οὐχ ὁμόφωνοι, καὶ ὁμόφωνοι
 μὲν οἱ μὴ διαφέροντες ἀλλήλων καθ' ὀξύτητα καὶ
 βαρύτητα, οὐχ ὁμόφωνοι δὲ οἱ μὴ οὕτως ἔχοντες.
 43 τῶν δὲ ὁμοφώνων, ὡς καὶ τῶν οὐχ ὁμοφώνων,
 τινὲς μὲν ὀξεῖς τινὲς δὲ βαρεῖς καλοῦνται, καὶ
 πάλιν τῶν οὐχ ὁμοφώνων οἱ μὲν διάφωνοι προσ-
 αγορεῖονται οἱ δὲ σύμφωνοι, καὶ διάφωνοι μὲν οἱ
 ἀνωμάλως καὶ διεσπασμένως τὴν ἀκοὴν κινοῦντες,
 44 σύμφωνοι δὲ οἱ ὁμαλότερον καὶ ἀμερίστως. σαφέ-
 στερον δὲ μᾶλλον ἔσται τὸ ἐκἀτέρου γένους ἰδίωμα
 τῆ ἀπὸ τῶν πρὸς γεῦσιν ποιότητων μεταβάσει
 χρησαμένων ἡμῶν. ὡσπερ τοῖνυν τῶν γευστῶν
 τὰ μὲν τοιαύτην ἔχει κράσιν ὥστε μονοειδῶς καὶ
 λείως κινεῖν τὴν αἴσθησιν, ὅποιοι τὸ οἰνόμελι καὶ
 ἰδρόμελι, τὰ δὲ οὐχ ὡσαύτως οὐδὲ ὁμοίως, καθ-
 ἄπερ τὸ ὀξύμελι (ἐκἀτερον γὰρ τούτων τῶν μιγ-
 μάτων τὴν ἴδιον ἐντυποῖ ποιότητα τῆ γεύσει), οὕτω
 τῶν φθόγγων διάφωνοι μὲν εἰσιν οἱ ἀνωμάλως τὴν
 ἀκοὴν καὶ διεσπασμένως κινοῦντες, σύμφωνοι δὲ
 οἱ ὁμαλότεροι. ἀλλὰ γὰρ ἡ μὲν διαφορὰ τῶν
 45 φθόγγων τοιαύτη τίς ἐστὶ παρὰ μουσικοῖς· περι-
 γράφεται δὲ τινα πρὸς τούτων διαστήματα, καθ'
 ᾧ καὶ ἡ φωνὴ κινεῖται ἤτοι ἐπὶ τὸ ὀξύτερον ἀνα-

vision, so also we employ names derived by trans-
 ference from those of touch. Whenever, then, the
 sound is expelled evenly and at one "tension" (or
 "pitch"), so that there is no diversion of the sense
 towards the "grave" or the "sharp," then such a
 sound is called a "note," and so the Musicians say 42
 in their definitions "A note is the fall under one
 tension of a musical sound." And of notes some
 are "homophonous" (or "in unison"), others not
 "homophonous"; "homophonous" being those
 which do not differ from one another in respect of
 "sharpness" or "gravity," and not "homo-
 phonous" those which are not of this character.
 And of the "homophonous,"—as also of the not 43
 "homophonous,"—some are termed "sharp," others
 "grave"; and of the not "homophonous," again,
 some are called "dissonant," others "consonant,"
 "dissonant" being such as affect the hearing un-
 evenly and intermittedly, and "consonant" such as
 affect it evenly and continuously. But the special 44
 character of each kind will be more clear if we make
 use of a comparison with the qualities relating to
 taste. Thus, just as some of the objects of taste are
 of such a blend as to affect the sense uniformly and
 smoothly, like honey-wine and honey-water, whereas
 others affect it in distinct and dissimilar ways, as for
 instance honey-vinegar (for each of these constituents
 stamps its own quality on the sense of taste),—so also
 with notes, those which affect the hearing unevenly
 and intermittedly are "dissonant," and those which
 are even are "consonant." Such, then, is the dis-
 tinction as to "notes" as laid down by the Musicians.
 —And by these, certain "intervals" are determined 45
 within which the sound moves, either ascending

βαίνουσα ἢ ἐπὶ τὸ βαρύτερον ἀνιεμένη. παρ' ἣν
 αἰτίαν κατὰ τὸ ἀνάλογον τῶν διαστημάτων τούτων
 τὰ μὲν σύμφωνα τὰ δὲ διάφωνα προσηγόρευται,
 46 καὶ σύμφωνα μὲν ὅποσα ὑπὸ συμφώνων φθόγγων
 περιέχεται, διάφωνα δὲ ὅποσα ὑπὸ διαφώνων. τῶν
 δὲ συμφώνων διαστημάτων τὸ μὲν πρῶτον καὶ
 ἐλάχιστον διὰ τεσσάρων οἱ μουσικοὶ προσαγορεύ-
 ουσι, τὸ δὲ μετὰ τοῦτο μείζον διὰ πέντε, καὶ τοῦ
 47 διὰ πέντε μείζον τὸ διὰ πασῶν. πάλιν τε τῶν
 διαφώνων διαστημάτων ἐλάχιστον μὲν ἐστὶ καὶ
 πρῶτον παρ' αὐτοῖς ἢ καλουμένη δίσσις, δεύτερον
 δὲ τὸ ἡμιτόνιον, ὃ ἐστὶ διπλοῦν τῆς δίσσεως, τρίτον
 48 ὁ τόνος, ὃς ἐστὶ διπλασίον τοῦ ἡμιτονίου. οὐ μὴν
 ἀλλ' ὃν τρόπον ἅπαν διάστημα κατὰ μουσικὴν ἐν
 φθόγγοις ἔχει τὴν ὑπόστασιν, οὕτω καὶ πᾶν ἦθος·
 τὸ δ' ἐστὶ τι γένος μελωδίας. καθὰ γὰρ τῶν
 ἀνθρωπίνων ἡθῶν τινὰ μὲν ἐστὶ σκυθρωπὰ καὶ
 στιβαρώτερα, ὅποια τὰ τῶν ἀρχαίων ἰστοροῦσιν,
 τὰ δὲ εὐένδοτα πρὸς ἔρωτας καὶ οἰνοφλυγίας καὶ
 ὄδυρμους καὶ οἰμωγὰς, οὕτω τὶς μὲν μελωδία
 σεμνὰ τινα καὶ ἀστεία ἐμποιεῖ τῇ ψυχῇ κινήματα,
 49 τὶς δὲ ταπεινότερα καὶ ἀγεννῆ. καλεῖται δὲ κατὰ
 κοινὸν ἢ τοιουτότροπος μελωδία τοῖς μουσικοῖς
 ἦθος ἀπὸ τοῦ ἦθους εἶναι ποιητικὴ, καθάπερ καὶ
 τὸ χλωρὸν δέος τὸ χλωροποιόν, καὶ τὸ "νότοι
 βαρῆκοι ἀχλυῶδεις κερηβαρικοὶ νωθροὶ διαλυτι-
 50 κοί" ἀντὶ τοῦ τούτων δραστικοί. τῆς δὲ κοινῆς
 μελωδίας ταύτης τὸ μὲν τι χρῶμα λέγεται τὸ δὲ
 ἄρμονία τὸ δὲ διάτονον, ὧν ἢ μὲν ἄρμονία αὐστη-

towards the "sharp" or descending towards the
 "grave." And because of this some of these inter-
 vals are, by analogy, called "consonant," others
 "dissonant"; and "consonant" are all those con- 46
 tained by consonant notes, and "dissonant" all
 those contained by dissonant notes. Of consonant
 intervals the first and least is termed by the Musicians
 "By-Fours" (or "The Fourth"), the greater one
 which comes next to this "By-Fives" (or "The
 Fifth"), and the one which is greater than the
 By-Fives the "By-Alls" (or "The Octave").^a Also,
 of the dissonant intervals, again, the least and first 47
 is what is called by them "Diesis" (or "Quarter-
 tone"); second is the "Semi-tone," which is
 double the "Diesis"; third, the "Tone," which is
 double the "Semi-tone."—Moreover, just as every 48
 interval in music consists of notes, so also does every
 "Êthos" (or "character"); and it is a certain
 "Genus" of melody. For just as of human char-
 acters some are gloomy and stubborn, such as those of
 the ancients are reported to have been, while others
 yield easily to lusts and debauchery and lamentations
 and groanings, so a certain kind of melody produces
 in the soul stately and refined motions, another kind
 motions that are base and ignoble. Melody of this 49
 sort is called, in general, by the Musicians "Êthos"
 from the fact that it is productive of "character,"
 just as fear is called "pallid"^b for "pallor-causing,"
 and South-winds "deaf" and "foggy" and "head-
 achey" and "dull" and "relaxing," instead of being
 said to be causes of these effects. And of this general 50
 type of melody one kind is called "Chroma" (or
 "Colour," Chromatic), another "Harmony" (or
 "Enharmonic"), another "Diatonic"; and of these

^a Cf. P.H. iii. 155; Adv. Arithm. 6-9.

^b Cf. Hom. Il. vii. 479.

ροῦ τινὸς ἤθους καὶ σεμνότητος κατασκευαστικῆ
 πως ὑπῆρχεν, τὸ δὲ χρῶμα λιγυρόν τί ἐστι καὶ
 θρηνηῶδες, τὸ δὲ διάτονον ἔντραχυ καὶ ὑπάγρουικον.
 51 ἀλλὰ δὴ πάλιν τὸ μὲν ἀρμονικὸν μέλος τῶν μελω-
 δουμένων ἀδιαίρετόν ἐστι, τὸ δὲ διάτονον καὶ τὸ
 χρῶμα εἰδικωτέρας τινὰς εἶχε διαφοράς, δύο μὲν
 τὸ διάτονον, τὴν τε τοῦ μαλακοῦ διατόνου καλου-
 μένην καὶ τὴν τοῦ συντόνου, τρεῖς δὲ τὸ χρῶμα·
 τὸ μὲν γάρ τι αὐτοῦ τονικὸν καλεῖται τὸ δὲ ἡμιτό-
 νιον τὸ δὲ μαλακόν.
 52 Πλὴν ἐκ τούτων συμφανὲς ὅτι πᾶσα ἡ κατὰ μελω-
 δίας θεωρία παρὰ τοῖς μουσικοῖς οὐκ ἐν ἄλλῳ τινὶ
 τὴν ὑπόστασιν εἶχεν εἰ μὴ ἐν τοῖς φθόγοις. καὶ
 διὰ τοῦτο ἀναιρουμένων αὐτῶν τὸ μηδὲν ἔσται ἡ
 μουσική. πῶς οὖν καὶ ἐρεῖ τις ὅτι οὐκ εἰσὶ φθόγο-
 γοι; ἐκ τοῦ φωνῆν αὐτοὺς κατὰ γένος ὑπάρχειν,
 φήσομεν, καὶ τὴν φωνῆν ἀνύπαρκτον ἡμῖν ἐν τοῖς
 σκεπτικοῖς ὑπομνήμασι δεδειχθαι ἀπὸ τῆς τῶν δογ-
 53 ματικῶν μαρτυρίας. οἱ τε γὰρ ἀπὸ τῆς Κυρήνης
 φιλόσοφοι μόνα φασὶν ὑπάρχειν τὰ πάθη, ἄλλο δὲ
 οὐδέν· ὅθεν καὶ τὴν φωνῆν μὴ οὐσαν πάθος, ἀλλὰ
 πάθους ποιητικὴν, μὴ γίνεσθαι τῶν ὑπαρκτῶν.
 οἱ γέ τοι περὶ τὸν Δημόκριτον καὶ Πλάτωνα πᾶν
 αἰσθητὸν ἀναιροῦντες συναναιροῦσι καὶ τὴν φωνῆν,
 54 αἰσθητὸν τι δοκοῦσαν πρᾶγμα ὑπάρχειν. καὶ γὰρ
 ἄλλως, εἰ ἔστι φωνή, ἦτοι σῶμά ἐστιν ἢ ἀσώ-
 ματον· οὔτε δὲ σῶμά ἐστιν, ὡς οἱ περιπαθητικοὶ διὰ
 πολλῶν διδάσκουσιν, οὔτε ἀσώματος, ὡς οἱ ἀπὸ
 55 τῆς στοᾶς· οὐκ ἄρα ἔστι φωνή. ἄλλος δὲ τις κἂν
 ἐκείνως ἐπιχειρήσειε λέγειν, ὡς εἰ μὴ ἔστι ψυχὴ

the Enharmonic is of an austere ἔθος and produc-
 tive of solemnity, while the Chromatic is shrill and
 dirgelike, and the Diatonic somewhat rough and
 unrefined. And further, the Enharmonic tune is 51
 inseparable from the songs that are being sung, but
 the Diatonic and the Chromatic have certain distinct
 sub-species, the Diatonic two,—that of the so-called
 “Lax Diatonic” and that of the “Tense Diatonic,”
 —and the Chromatic three, called respectively the
 “Tonic,” the “Semi-tonic” and the “Lax.”

Now from this it is evident that the whole of 52
 the Musicians’ theory of melody is based on nothing
 else than notes. And, because of this, if these
 are destroyed Music will be nothing. How, then,
 can one assert that notes do not exist? From
 the fact, we shall say, that they come under the
 genus “sound,” and that sound is non-existent has
 been proved by us,^a in our *Sceptic Commentaries*,
 from the evidence of the Dogmatists. For the 53
 Cyrenaic philosophers^b assert that only the feelings
 exist, and nothing else; and hence that sound, not
 being a feeling but productive of feeling, is not an
 existent. Democritus,^c indeed, and Plato, by de-
 stroying every sense-object, destroy therewith sound,
 which is held to be an object of sense.—Furthermore, 54
 if sound exists it is either corporeal or incorporeal;
 but it is not corporeal, as the Peripatetics demon-
 strate by numerous arguments; nor is it incorporeal,
 as the Stoics prove^d; therefore sound does not
 exist.—And some other person will attempt to argue 55
 thus: If the soul does not exist, neither do the

^a Cf. *Adv. Log.* ii. 131 (though this is not the book re-
 ferred to).

^b Cf. vol. i. p. xvii, *P.H.* . 215; *Adv. Log.* i. 191.

^c Cf. vol. i. pp. xi f.

^d Cf. *Adv. Gram.* 155.

οὐδὲ αἰσθήσεις· μέρη γὰρ ταύτης ὑπήρχον. εἰ δὲ
 μὴ εἰσὶν αἱ αἰσθήσεις, οὐδὲ τὰ αἰσθητά· πρὸς
 αἰσθήσεις γὰρ ἢ τούτων ὑπόστασις νοεῖται. εἰ δὲ
 μὴ αἰσθητά, οὐδὲ φωνή· εἶδος γὰρ τι τῶν αἰσθη-
 τῶν ὑπήρχεν. ἀλλὰ μὴν οὐδέν ἐστι ψυχὴ, καθὼς
 ἐν τοῖς περὶ αὐτῆς ὑπομνήμασιν ἐδείκνυμεν· οὐκ
 56 ἄρα ἔστι φωνή. καὶ μὴν εἰ μήτε βραχεῖά ἐστι
 φωνὴ μήτε μακρά, οὐκ ἔστι φωνή· οὔτε δὲ βραχεῖά
 ἐστὶν οὔτε μακρὰ φωνή, ὡς ἐν τοῖς πρὸς τοὺς
 γραμματικὸς ὑπεμνήσαμεν, περὶ συλλαβῆς καὶ
 λέξεως ζητοῦντες πρὸς τούτους· οὐκ ἄρα ἔστι
 57 φωνή. πρὸς τούτοις ἢ φωνὴ οὔτε ἐν ἀποτελέσματι
 οὔτε ἐν ὑποστάσει νοεῖται, ἀλλ' ἐν γενέσει καὶ
 χρονικῇ παρεκτάσει· τὸ δὲ ἐν γενέσει νοούμενον
 γίνεται, οὐδέπω δ' ἔστιν, ὥσπερ οὐδὲ οἰκία γινο-
 μένη ἢ ναὺς καὶ ἄλλα παμπληθῆ εἶναι λέγεται.
 58 τοίνυν οὐθέν ἐστι φωνή. καὶ ἄλλοις δὲ συχνοῖς εἰς
 τοῦτο ἔνεστι λόγοις χρῆσθαι, περὶ ὧν, ὡς ἔφην,
 ἐν τοῖς Πυρρωνείοις ὑπομνηματιζόμενοι διεξήειμεν.
 νυνὶ δὲ φωνῆς μὴ οὔσης οὐδὲ φθόγγος ἔστιν, ὅς
 ἐλέγετο φωνῆς πτώσις ὑπὸ μίαν τάσιν· φθόγγου
 δὲ μὴ ὄντος οὐδὲ διάστημα μουσικὸν καθέστηκεν,
 οὐ συμφωνία, οὐ μελωδία, οὐ τὰ ἐκ τούτων γένη.
 διὰ τοῦτο οὐδὲ μουσική· ἐπιστήμη γὰρ ἐλέγετο
 ἐμμελῶν τε καὶ ἐκμελῶν.

59 "Ὅθεν ἀπ' ἄλλης ἀρχῆς ὑποδεικτέον ὅτι κἂν τού-
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senses; for they are parts of the soul. And if the
 senses do not exist, neither do the sense-objects; for
 their existence is conceived as relative to the senses.
 And if sense-objects do not exist, neither does sound;
 for it is a species of sense-object. But, in fact, soul
 is nothing, as we have shown in our treatise concern-
 ing it^a; therefore sound does not exist.—Moreover, 56
 if sound is neither short nor long, sound does not
 exist; but sound is neither short nor long, as we
 have shown in our treatise *Against the Grammar-*
ians,^b when questioning their theory of the syllable
 and the word; therefore sound does not exist.—In 57
 addition, sound is conceived neither as a completed
 thing nor as a substantial thing,^c but as a thing which
 comes into being and has extension in time; but
 that which is conceived as coming into being is
 coming into being, but does not as yet exist,—just
 as a house which is coming into being, or a ship or a
 multitude of other things, is not said to exist. So,
 then, sound is nothing. There are also many other 58
 arguments one might use to prove this point, such as
 those with which, as I said, we have dealt fully in
 our comments in *Pyrrhoneia*.^d—Now, then, as sound
 does not exist, neither does the note, for it was de-
 scribed as “the fall of a sound under one tension”^e;
 and when the note does not exist, neither does the
 musical interval exist, nor symphony, nor melody, nor
 the Genera formed from these.^f Therefore, Music
 does not exist either; for it was described as “the
 Science of things in tune and out of tune.”^g

Hence, making a fresh start, we must show that, 59

^a No longer extant; but cf. *P.H.* ii. 31 ff., iii. 186.

^b Cf. *Adv. Gram.* 124 ff.

^c Cf. *Adv. Log.* ii. 131.

^d Another lost work.

^e Cf. § 42.

^f Cf. § 50.

^g Cf. § 38.

των ἀποστῶμεν, διὰ τὴν ἐγχειρηθησομένην ἐπὶ τῆς
 ῥυθμοποιίας ἀπορίαν ἀνυπόστατος καθέστηκεν ἡ
 μουσική. εἰ γὰρ μηδὲν ἐστὶ ῥυθμός, οὐδὲ ἐπι-
 στήμη τις ἔσται περὶ ῥυθμοῦ· ἀλλὰ μὴν οὐδὲν ἐστὶ
 ῥυθμός, ὡς παραστήσομεν· οὐκ ἄρα ἔστι τις ἐπι-
 60 στήμη περὶ ῥυθμοῦ. ὡς γὰρ πολλάκις εἰρήκαμεν,
 ῥυθμός σύστημά ἐστιν ἐκ ποδῶν, ὁ δὲ πούς τὸ
 συνεστῶς ἐξ ἄρσεως καὶ θέσεως· ἡ δὲ ἄρσις καὶ ἡ
 θέσις ἐν ποσότητι χρόνου θεωρεῖται, ὧν τινὰς μὲν
 ἐπέειχεν ἡ θέσις τινὰς δὲ ἡ ἄρσις χρόνους. καθάπερ
 γὰρ ἐκ μὲν στοιχείων συλλαβαὶ ἐκ δὲ συλλαβῶν
 λέξεις συντίθενται, οὕτως ἐκ μὲν τῶν χρόνων οἱ
 61 πόδες ἐκ δὲ τῶν ποδῶν οἱ ῥυθμοὶ γίνονται. εἰ
 οὖν δείξωμεν ὅτι οὐδὲν ἐστὶ χρόνος, ἔξομεν συν-
 αποδεδειγμένον ὅτι οὐδὲ πόδες ὑπάρχουσιν, διὰ
 δὲ τοῦτο οὐδὲ οἱ ῥυθμοί, ἐξ ἐκείνων τὴν σύστασιν
 λαμβάνοντες. ὧ ἀκολουθήσει τὸ μηδὲ ἐπιστήμην
 εἶναι τινα περὶ ῥυθμούς. πῶς οὖν; ὅτι οὐδὲν ἐστὶ
 χρόνος, ἥδη μὲν παρεστήσαμεν ἐν τοῖς Πυρρω-
 νείοις, οὐδὲν δὲ ἦττον καὶ τὰ νῦν παραστήσομεν
 62 ἐπὶ ποσόν. εἰ γὰρ ἔστι τι χρόνος, ἦτοι πεπερασταὶ
 ἢ ἀπειροὶ ἐστί. οὔτε δὲ πεπερασταὶ, ἐπεὶ ἐροῦμέν
 ποτε γεγονέναι χρόνον ὅτε χρόνος οὐκ ἦν, καὶ
 ἔσεσθαι ποτε χρόνον ὅτε χρόνος οὐκ ἔσται, οὔτε
 ἀπειροὶ καθέστηκεν· ἔστι γὰρ τι αὐτοῦ παρωχηκὸς
 [καὶ ἐνεστῶς]¹ καὶ μέλλον, ὧν ἐκάτερον εἰ μὲν οὐκ
 ἔστιν, πεπερασταὶ ὁ χρόνος, εἰ δ' ἔστιν, ἔσται ἐν
 63 ἄτοπον. οὐκ ἄρα ἔστι χρόνος. τό γε μὴν ἐξ

even if we lay aside these considerations, Music is non-existent owing to the doubt regarding rhythm-making which is now to be raised. For if rhythm is nothing, no science of rhythm will exist; but, in fact, rhythm is nothing, as we shall establish; therefore no science of rhythm exists. For as we have fre- 60
 quently stated, rhythm is a system composed of "feet," and a "foot" is that which consists of "arsis" and "thesis"^a; and "arsis" and "thesis" are seen in quantity of time, for the "thesis" occupies certain periods of time and the "arsis" certain other periods. For just as syllables are composed of elements, and words of syllables, so feet are composed of times, and rhythms of feet. If, then, we 61
 shall show that time is nothing, we shall have shown therewith that feet also do not exist, nor, consequently, rhythms, as they derive their consistence from feet. And from this it will follow that no science of rhythms exists. How then? That time is nothing we have already established in our *Pyrrhoneia*,^b but none the less we shall also establish it now, up to a point.—For if time is anything, it is 62
 either limited or unlimited. But it is not limited, since, if so, we shall be saying that there was once a time when time did not exist, and that there will sometime be a time when time will not exist. Nor is it unlimited; for a part of it is past, a part future, and if each of these does not exist time is limited, and if each does exist, then both the past and the future will exist in the present, which is absurd. Therefore time does not exist.—Also, that which is 63

^a Terms derived from the motions of dancers in raising ("arsis") and setting down ("thesis") the feet.

^b Cf. *P.H.* iii. 136 ff.; *Adv. Phys.* ii. 169 ff.

¹ [καὶ ἐνεστῶς] del. Heintz.

ἀνυπάρκτων συνεστῶς ἀνυπαρκτον ἐστίν· ὁ δὲ
 χρόνος ἕκ τε τοῦ παρωχημένου καὶ μηκέτ' ὄντος
 καὶ ἕκ τοῦ μέλλοντος μηδέπω δὲ ὄντος συνεστῶς
 64 ἀνυπαρκτος ἐσται. ἄλλως τε, εἰ μὲν ἀμερῆς ἐστιν
 ὁ χρόνος, πῶς τὸ μὲν τι αὐτοῦ παρωχημένον τὸ
 δὲ ἐνεστῶς τὸ δὲ μέλλον λέγομεν; εἰ δὲ μεριστός
 ἐστιν, ἐπεὶ πᾶν τὸ μεριστόν ὑπὸ τινος αὐτοῦ μέ-
 ρους καταμετρεῖται, ὡς πήχυς μὲν ὑπὸ παλαιστοῦ,
 ὁ παλαιστής δὲ ὑπὸ δακτύλου, δεήσει καὶ αὐτὸν
 65 ὑπὸ τινος τῶν αὐτοῦ μερῶν καταμετρεῖσθαι. οὔτε
 δὲ τῷ ἐνεστῶτι δυνατὸν καταμετρεῖν τοὺς ἄλλους
 χρόνους, ἐπεὶπερ ὁ γινόμενος καὶ ὁ ἐνεστῶς χρόνος
 ὁ αὐτὸς ἐσται κατ' αὐτοὺς παρωχημένους καὶ
 μέλλων, παρωχημένος μὲν ὅτι τὸν παρωχημένον
 καταμετρεῖ χρόνον, μέλλων δὲ ὅτι τὸν μέλλοντα·
 ὅπερ ἄποπον. οὔτε τούτων τινὶ τῶν λειπομένων
 δυοῖν τὸν ἐνεστῶτα καταμετρητέον. δι' ἣν αἰ-
 66 τίαν οὐδὲ ταύτη λεκτέον εἶναί τινα χρόνον. πρὸς
 τούτοις ὁ χρόνος τριμερῆς ἐστι, καὶ τὸ μὲν ἔχει
 παρωχηκὸς τὸ δὲ ἐνεστῶς τὸ δὲ μέλλον, ὧν τὸ μὲν
 παρωχημένον οὐκέτι ἐστιν, τὸ δὲ μέλλον οὐπω
 ἐστιν, τὸ δὲ ἐνεστῶς ἦτοι ἀμερῆς ἐστιν ἢ μεριστόν.
 ἀλλ' ἀμερῆς μὲν οὐκ ἂν εἴη· ἐν ἀμερεὶ μὲν γὰρ
 οὐδὲν δύναται γίνεσθαι μεριστόν, ὡς φησὶ Τίμων,
 67 οἷον τὸ γίνεσθαι, τὸ φθεῖρεσθαι. καὶ ἄλλως, εἴπερ
 ἀμερῆς ἐστὶ τὸ ἐνεστῶς τοῦ χρόνου, οὔτε ἀρχὴν
 ἔχει ἀφ' ἧς ἀρχεται, οὔτε πέρας ἐφ' ὃ καταλήγει,
 διὰ δὲ τοῦτο οὐδὲ μέσον· καὶ οὕτως οὐκ ἐσται ὁ
 ἐνεστῶς χρόνος. εἰ δὲ μεριστός ἐστιν, εἰ μὲν εἰς
 τοὺς μὴ ὄντας χρόνους μερίζεται, οὐκ ἐσται χρό-
 νος, εἰ δ' εἰς τοὺς ὄντας χρόνους, οὐκ ἐσται ὅλος ὁ

¹ οὔτε scripsi; οὐ mss., Bekk.

composed of non-existents is non-existent; and time being composed of the past, which no longer exists, and of the future, which does not yet exist, will be non-existent.—Again, if time is indivisible, how is it 64 that we call a part of it “past,” a part “present,” and a part “future”? And if it is divisible, since everything divisible is measured by some part of itself,—as the cubit by the palm, and the palm by the finger,—time, too, will have to be measured by one of its own parts. But it is not possible to measure the 65 other times by the present, since, according to them, the same instant and present time will be both past and future,—past because it measures the past time, and future because it measures the future; which is absurd. Nor yet can one measure the present by one of the two remaining times. And, because of this, one must declare that thus, too, no time exists.—Furthermore, time is tripartite,^a and one part is past, 66 one present, and one future; and of these the past no longer exists, the future does not yet exist, and the present is either indivisible or divisible. But it will not be indivisible; for, as Timon asserts, no divisible thing, such as becoming and perishing, can become in indivisible time.—Again, if the present part of 67 time is indivisible, it has neither a beginning from which it begins, nor an end at which it ceases, nor, in consequence, a middle, and thus present time will not exist. And if it is divisible, then, if it is divided into the non-existing times, time will not exist; while if it is divided into the existing times, time will not exist as

^a Cf. P.H. iii. 144; Adv. Phys. ii. 197 ff., where, too, Timon is quoted.

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χρόνος, ἀλλὰ τῶν μερῶν αὐτοῦ τινὰ μὲν ἔσται
τινὰ δὲ οὐκ ἔσται. τοίνυν οὐδὲν ἔστι χρόνος, διὰ
δὲ τοῦτο οὐδὲ πόδες, οὐδὲ ῥυθμοί, οὐδ' ἢ περὶ τοὺς
ῥυθμοὺς ἐπιστήμη.

68 Τοσαῦτα πραγματικῶς καὶ πρὸς τὰς τῆς μου-
σικῆς εἰπόντες ἀρχὰς ἐν τοσοῦτοις τῆν πρὸς τὰ
μαθήματα διέξοδον ἀπαρτίζομεν.

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a whole, but some of its parts will exist and others will
not exist. So, then, time is nothing; and, conse-
quently, feet, too, and rhythms, and the science of
rhythms are nothing.

Having said thus much by way of effective 68
argument against the principles of Music, we here
bring to a close our disputation against the Arts
and Sciences.

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(Abbreviations used are: Gr. = "Against the Grammarians." R. = "Against the Rhetoricians." Gm. = "Against the Geometers." Ar. = "Against the Arithmeticians." Ast. = "Against the Astrologers." M. = "Against the Musicians." P. = "Against the Professors.")

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