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## PLUTARCH AND ARISTOTLE

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Plutarch believed (*Sulla* 26) that Sulla acquired the library of Apellicon of Teos, which contained most of Aristotle's and Theophrastus' books, at that time still imperfectly known to the public, and brought it to Rome, where it passed into the care of Tyrannion, who supplied Andronicus of Rhodes with copies. Andronicus made available what he received and drew up the lists current in Plutarch's time. Plutarch adds that the earlier Peripatetics were accomplished and scholarly men, but their acquaintance with Aristotle's and Theophrastus' writings was limited to a few works and was superficial<sup>1)</sup> (οὐτε πολλοῖς οὔτ' ἀκριβῶς ἐντετυχηκότες), because the estate of Neleus of Scepsis, to whom Theophrastus had left the books, fell into the hands of men without ambition or interest in philosophy.

Whatever may be the truth in this, the activity of Andronicus<sup>2)</sup> made possible, or at least easier, the serious study of Aristotle's philosophy. He seems to have listed, arranged, and made available what had previously been neglected, speaking generally, namely the scripts which were the basis of Aristotelian lecture-courses and which go to constitute the *Corpus Aristotelicum*. It will be of interest to enquire what use Plutarch made of this opportunity. He was not a professional philosopher in the sense of one who gave his whole life to the subject. But he was keenly interested, he seems to have directed the studies of young men at Chaeronea, and he wrote a considerable number of books on philosophical topics. He was a Platonist, who frequently quoted the master's writings and could interpret them with originality. He was well-versed in Stoicism and to some it seems probable that he read

widely in the stylistically unattractive work of Chrysippus.<sup>3)</sup> So there would be no cause for surprise if he turned to the study of this new material. Yet that he did so turn must not be taken for granted without putting the question whether his writings show a knowledge of the works of our *Corpus Aristotelicum*.

The answers of modern scholars to this question are strikingly divergent.

### I

In *Plutarchos von Chaironea* (1949) 284, = *RE* XXI.1.922, K. Ziegler wrote 'of course Plutarch knew Aristotle well. All sorts of important reports about him are in the *Lives*, particularly that of Alexander; *Physics*, *Metaphysics*, *Topica*, *De caelo*, *De anima*, *Ethics*, *Politics*, 'Αθηναίων Πολιτεία are cited, but the *Problemata* (regarded by him as genuine) with particular frequency and once the *Mirabiles auscultationes*. Knowledge of the *Poetics* can be traced in *De audiendis poetis*.'<sup>4)</sup> This list is accepted without question by G. Verbeke, 'Plutarch and the Development of Aristotle', *Plato and Aristotle in the mid-fourth century*, ed. I. Düring and G. E. L. Owen (Göteborg, 1960) 236, but he does ask whether Plutarch knew these works 'by direct acquaintance'. He never answers the question, but the repetition of the phrase 'familiar with' would suggest to the unwary that the acquaintance was direct, and once he alleges that Plutarch 'directly draws inspiration' from *EN* VI. Even more extreme is P. Merlan, *From Platonism to neo-Platonism* (The Hague, 1960), 219: 'After all Plutarch is obviously very familiar with Aristotle's writings, both those which have been preserved and others now lost'.

On the other side I. Düring wrote, in 'Notes on the history of the transmission of Aristotle's writings' *Göteborgs Högskolans Årsskrift* 56 (1950) = *Symbolae Philologicae Gotoborgenses* 37, p. 41 n. 4, 'in a forthcoming study of Plutarch's quotations from Aristotle I hope to show that no passage with certainty can be said to emanate from direct study of a text similar to our text in the *Corpus Aristotelicum*.' This study seems never to have appeared. In 'Aristotle in the ancient biographical tradition', *Göteborgs Universitets Årsskrift* 63 (1957) 355, he says that he has not reached a final opinion, but 'we cannot doubt that he [Plutarch] knew the dialogues and the *Protrepticus*; of the treatises he knew the *Physics*, *De caelo*, *De anima*; exactly what parts of the ethical treatises and the *Politics* he knew first-hand is more doubtful. He obviously regarded the *De virtutibus et vitiis* and *De mundo* as genuine works of

Aristotle... he only had second-hand knowledge of Andronicus' edition and of the contents and purport of the *Metaphysics*.<sup>5)</sup> P. Moraux goes even further, saying that Plutarch concerned himself as little as Cicero with Aristotle's treatises.<sup>6)</sup>

This difference of opinion can only be resolved by a study of the evidence, and this I have attempted. The result will prove to be close to Düring's first statement, a conclusion that may at first sight appear to be contradicted by H. C. Helmbold and E. N. O'Neil, *Plutarch's Quotations* (Philological Monographs of the American Philological Association, no. 19, 1959), where 260 passages in the works of the *Corpus Aristotelicum* are cited, along with 32 from 'Αθηναίων Πολιτεία and 92 from Rose's *Fragmenta*. In the last two classes the name of Aristotle occurs with some frequency, and I have no doubt that Plutarch knew a lost version of the *Problemata* and some of the *Politeiai*. But our concern is with the *Corpus*, and if we examine these 260 'quotations', we find that most of them fade away. A few must be eliminated because they come from works which Plutarch did not write, notably *de fato*, the essay of someone strongly affected by Peripateticism. Many more must disappear because all that the parallel passages have in common is that they allude to the same subject; there is no reason for supposing that Plutarch had read Aristotle's remarks.<sup>7)</sup>

These parallels range from matters of general knowledge or belief to instances where the two authors have quite different things to say. As an example of the first kind Plutarch had no need to go at *QC* 660 F to *Historia animalium* 532 b 3 or 556 b 16 or *Part. anim.* 682 a 25 to learn that cicadas drank dew;<sup>8)</sup> as one of the second, at *H.A.* 586 a 2 and *G.A.* 722 a 8 Aristotle tells the story of a woman of Elis who lay with an Ethiopian and had a white daughter but a black grand-daughter; at *de sera numinis vindicta* 563 A Plutarch tells of a woman who bore a black child and was accused by her white husband of adultery, but was cleared when enquiry showed her to have had an Ethiopian great-great-grandfather.

## II

Two difficulties beset an enquiry into the extent of Plutarch's knowledge of the works included in our *Corpus*, and they should be emphasised at once. We know little about the contents of Aristotle's exoteric works, at least some of which were still in circulation, but they certainly contained much

that was also in the treatises of the *Corpus*. When Plutarch ascribes something to Aristotle and that or something similar is to be found in one of the treatises, it may be asked whether he refers not to the treatise, but to an exoteric work. In what follows I have tried to be sparing in the use of this possibility, but it is one always to be borne in mind.

The other difficulty is that when Plutarch mentions Aristotle or seems to be dependent on some passage in his works, one cannot always be confident that he knew Aristotle directly and was not using some intermediate authority. Scholars have, rightly in my view, increasingly come to believe that he read widely in original sources and was no slavish copier of lost secondary writers. It is no longer an accepted principle of criticism that he had not read any authority whom he named. That was absurd, but it would be equally absurd to suppose that if he named an authority he must have read him. Even scholars of today are known to cite predecessors' opinions without any mention of the intermediary through whom they have learnt them.

I propose to begin by listing the places where Plutarch mentions Aristotle by name.<sup>9)</sup> At once it springs to the attention that in the majority the reference is to a work not included in our *Corpus*. In a few of these the work is named: 1. Εὐδήμος ἢ περὶ ψυχῆς, *Dion.* 967 c. 2. Περὶ μέθης, 650 A. 3. Περὶ Ὀμήρου,<sup>10)</sup> 1095 A, 1095 E (by Nauck's certain emendation), frag. 122 Sandbach. 4. Προβλήματα φυσικά, 734 C,D and E, cf. 735 C. 5. Τὰ Πλατωνικά,<sup>11)</sup> 1118 C. 6. Κτίσεις καὶ Πολιτεῖαι, 1093 C. 7. Ὀρχομενίων Πολιτεία, frag. 82 Sandbach. 8. Βοττιαίων Πολιτεία, *Theseus* 6 e. 9. Περὶ εὐγενείας, *Aristides* 335 c ('if genuine'). 10. Ἡ τῶν Πυθιονικῶν ἀναγραφή, *Solon* 83 f. At 773 C Μενώνεια are cited without an author's name, but it is known that a work with this title was ascribed to Aristotle.

In many more places Aristotle is cited but the work is not named. Probable guesses may however be made and I will use conjecture to assign the mentions, mostly following V. Rose, *Aristoteles fragmenta* (Leipzig, 1886).

Προβλήματα φυσικά, 133 F, 458 F, 627 A,C,D, 635 B, 652 A (assigned by Ross, *Aristotelis fragmenta selecta* [Oxford, 1955] to περὶ μέθης, by Rose to Συμπόσιον, perhaps the same work but a different title), 656 B, 659 D, 690 C, 690 F, 694 D, 696 D, 702 B, 720 D, 932 B, 949 C and, not in

Rose, 914 F, 950 B, *Lysander* 434 b. Ὀμηρικὰ ζητήματα, 32 F, 398 A (pace Rose), 977 A. Νόμιμα βαρβαρικά, 265 B, 460 C. Προτρεπτικός, 527 A, *Pelopidas* 279 a (both assigned by Ross to περί πλούτου). Ἑρωτικά, *Pelopidas* 287 d. Περί ὄρνιθων, 727 E, 981 B. Πολιτεῖαι: Ἰθακησίων, 249 D. Λακεδαιμονίων *Lycurgus* 39 e, 42 e, 43 b, 47 e, 56 e, 59 b, *Cleomenes* 808 d. Ναξίων, 254 E. Σαμίων, *Pericles* 166 d, 167 c. Τεγεατῶν, 227 B, 292 B. Τροιζηνίων, 295 E, *Theseus* 2 b. Τυρρηνίων, 460 B. Συμπόσιον, 612 D. Spurious letters, 78 D, 472 E, 545 A, 329 B (this ascribed by Ross to Ἀλέξανδρος.)

There remain as uncertain 733 C (ascribed by Rose to Εὐδημος), 734 D (ascribed by Rose and Ross to Περί παιδεύσεως), 454 C, 853 F, 978 D, frag. 53 Sandbach (the last four not in Rose), *Camillus* 140 a, *Solon* 97 a, *Pericles* 153 f (these two assigned by Rose to Ἀθηναίων Πολιτεία), 434 B (if οἱ περί Ἀριστοτέλην is a periphrasis for Ἀριστοτέλης,) 375 C and 382 D (both assigned by Ross to Εὐδημος, but cf. *Alexander* 668).

Ἄθ. Πολ. must be treated separately, since although it is not part of the *Corpus*, it is not entirely lost. Clearly it was known to Plutarch, although he never mentions it by name. But Helmbold and O'Neil's list of quotations alleged to be detected in *Solon* is exaggerated. One only is quite certain, 92 b, προσηγορεύθησαν, ὡς Ἀριστοτέλης φησί, κύρβεις, from Ἄθ. Πολ. 7,1. Yet 85 b, 87 b, 87 f, 92 d and 96 c may well come from Ἄθ. Πολ. 2,7, 3-4, and 11,2, although Aristotle is not mentioned, and when at 78 e Plutarch says ἅπαντες ὁμαλῶς... λέγουσιν he probably includes Aristotle. But at 85 d, if Ἄθ. Πολ. was a source, μετὰ Φιλόμβροτον must come from somewhere else; similarly 86 f - 87 a contains much more than does Ἄθ. Πολ. He probably did not at 79 a derive from Aristotle a story which he tells without reservations but which the earlier author scornfully rejects (φανερῶς ληροῦσι) on chronological grounds. At 86 d-e, 90 a, 95 c-d, and 96 a his version of events is not that of Aristotle; at 85 e, 86 d, 87 d, 88 c, 88 d-e, 89 a, and 92 a dependence on Aristotle is uncertain. At 86 c, 86 e, 87 c, 88 b he quotes lines of Solon also to be found in Ἄθ. Πολ. But he certainly knew Solon's poetry in some other way; in 17 places scattered through his writings, but mostly in *Solon*, he quotes passages from that poet not to be found in Ἄθ. Πολ. So although these four are in that work he did not necessarily take them from there.

Ἄθ. Πολ. is a probable source at *Cimon* 484 d, *Pericles* 153 f, 157 a and 158 a, and *Themistocles* 117 a, and a certain one at *Nicias* 524 a, from Ἄθ. Πολ. 28.5. In all these places Aristotle is mentioned, as

he is in three other passages assigned by Rose to 'ΑΘ. Πολ.: *Theseus* 11 d, *Solon* 97 a, *Pericles* 153 f. But the last two are not paralleled in what remains of 'ΑΘ. Πολ., although that includes what appear to be the relevant contexts.

### III

We will now turn to the passages, which will prove to be far fewer in number, where Aristotle is named and reference has been seen to a work of the *Corpus*. Two warnings must be entered at once. The first has already been given. We are ill-informed about the contents of the exoteric works, and there are instances where it is possible that the reference is to one of them. The second is that some of Aristotle's opinions had become part of the heritage of the Peripatetics, had passed into handbooks and doxography, and could be quoted without implying acquaintance with the work of the *Corpus* in which they had first been enunciated.

It will be convenient to arrange the material according to the Aristotelian work involved, and to examine any further evidence there may be that Plutarch knew it, namely passages where Aristotelian influence has been claimed although Aristotle himself is not mentioned.

*Topica*. QC 616 D. Should the host assign places at dinner? ἀλλ' οὐδ' εὐχερῆς ἡ διάκρισις ἐστι... ἀλλὰ δεῖ καθάπερ ὑπόθεσιν μελετῶντα συγκριτικὴν τοῦς 'Αριστοτέλους Τόπους ἢ τοῦς Θρασυμάχου Ὑπερβάλλοντας<sup>12</sup>) ἔχειν προχείρους οὐδὲν τῶν χρησίμων διαπραττόμενον... The punning reference appears to be to Book III of the *Topica*, which begins πότερον δ' αἰρετώτερον ἢ βέλτιον δυεῖν ἢ πλειόνων, ἐκ τῶνδε σκεπτέον.

That Plutarch had made a close study of *Topica* is sometimes deduced from an entry in the so-called Lamprias-catalogue, a list of writings ascribed to him, perhaps the inventory of some library. In this item no. 56 is τῶν 'Αριστοτέλους τοπικῶν βιβλία η'. That is sometimes interpreted as if it were π ε ρ ῖ τῶν etc. But the surviving work of Plutarch yields no evidence of an interest in the *Topica* which could have led to the composition of such an extensive commentary. Rather I believe the words to mean what they say, namely 'Aristotle's *Topica*, 8 books' and that the 8 books of the *Topica* (without *Soph. El.*) had in the library by some mischance been wrongly placed among Plutarch's works.

However that may be, it seems that Plutarch expected his readers to have some knowledge of the *Topica*, at the very least of the general nature of its contents, namely that it provided methods of argument in a wide range of contexts. This is in fact all that it is *necessary* he should have known himself. Now it is not improbable that the *Topica* was used and had for centuries been used in the schools of rhetoric. It was a finished work, in which Aristotle had taken pride (183 a 37 - 184 b 8) and which there was no reason for withholding from the public. Cicero says (*Topica* 1) that it was in his own library and that he had advised Trebatius to look for it in that of a teacher of rhetoric.

Cicero is, however, an uncertain witness; a little later he seems to hedge, calling the work in his possession 'Aristotelian, as I think', and his own *Topica*, allegedly based on his memory of it, is certainly not derived from the *Topica* that we possess. There may therefore have been some spurious work in circulation, falsely ascribed to Aristotle.

That is speculative, but undoubtedly Plutarch envisaged the use of Aristotle's *Topica*, or of some work which passed under that name, by rhetoricians, to whose vocabulary ὑπόθεσις (LSJ II a 4) and μελετᾶν (LSJ II 5 b) belong. It may be most likely that he had some acquaintance with the genuine work, but it is not to be asserted with complete confidence.

The only other passage adduced by Helmbold-O'Neil is *de facie* 931 F; the definition there of νόξις as σκιὰ γῆς does not come from 146 b 28, where Aristotle himself says that this is the current definition. There is also a passage in *de virtute morali* (442 B) which may have reference to the *Topica*. It is discussed below under the heading *De anima*.

*Physics*. *Plat. quaest.* 1007 A. τὸν χρόνον μέτρον εἶναι κινήσεως καὶ ἀριθμὸν κατὰ <τὸ> πρότερον καὶ ὕστερον, ὡς Ἀριστοτέλης εἶπεν. Aristotle says this at *Physics* 219 b 2 and 220 a 24. But in Plutarch the sentence comes in a list of definitions of time, those of Speusippus, the Stoics, and Pythagoras; it may be guessed that he derived them all from a handbook. It is true that none are to be found in Aetius 1, 21.22, but Aristotle's was known to Arius Didymus (Stob. 1.8. 40).<sup>13)</sup>

None of the other passages adduced by Helmbold-O'Neil suggests knowledge of the *Physics*. *De facie* 926 C concurs with 217 a 2 and 255 b 26 in stating that air can be held below water if enclosed in a bladder. This is a matter of common observation; Plutarch did not need to read

Aristotle to know the fact. At 944 τὸ ἐφετὸν καὶ καλὸν καὶ θεῖον καὶ μακάριον recalls 192 a 16, θείου καὶ ἀγαθοῦ καὶ ἐφετοῦ; the argument of the two passages is different and the similarity of language may well be coincidental. The rest of the passages listed are from the pseudo-Plutarchean *Placita* and *de fato*.

*De caelo*. There are three passages in Plutarch where Aristotle is mentioned and something similar is to be found in *de caelo* and nowhere else in the *Corpus*. But in each case there is something to be said for seeing a reference not to *de caelo* but to the exoteric work *Περὶ φιλοσοφίας*, which is generally believed to have supplied material to *de caelo* Books I and II.

*De E apud Delphos* 389 F. τὸν Πλάτωνα προσάξομαι λέγοντα κόσμον ἓνα, ὡς εἴπερ εἰσὶ παρὰ τοῦτον ἕτεροι καὶ μὴ μόνος οὗτος εἷς, πέντε τοὺς πάντας ὄντας καὶ μὴ πλείονας (*Tim.* 55 c).<sup>14</sup> οὐ μὴν ἀλλὰ κἄν εἷς οὗτος ἢ μονογενής, ὡς οἴεται καὶ Ἀριστοτέλης... Aristotle argues at 276 a that there is only one κόσμος. But μονογενής is not part of his vocabulary; the phrase is Plato's: εἷς ὅδε μονογενής οὐρανός (*Tim.* 31 b 3). One may suspect the reference to be to *Περὶ φιλοσοφίας*, which offered an alternative to the *Timaeus*. It is known that Aristotle there maintained that the κόσμος was unique, fr. 19 a Ross, 19 Rose<sup>3</sup>, οὕτως γὰρ εἷς τε ἔσται (sc. ὁ κόσμος).

*De defectu oraculorum* 424 B. Having argued that there may be a multiplicity of κόσμοι, Plutarch concludes ἀδύνατον γὰρ οὐδέν ἐστι τούτων οὔτε μυθῶδες οὔτε παράλογον· εἰ μὴ νῆ Δία τὰ τοῦ Ἀριστοτέλους ὑπόψονταί τινες ὡς φυσικὰς αἰτίας ἔχοντα· τῶν γὰρ σωμάτων ἐκάστου τόπον οἰκεῖον ἔχοντος, ὡς φησιν, ἀνάγκη τὴν γῆν πανταχόθεν ἐπὶ τὸ μέσον φέρεσθαι. He then proceeds to give what can be seen as a simplified version of 276 a-b, and it may be that he had read that passage. But I doubt whether that can be asserted. The view that each element has its proper place occurred in *Περὶ φιλοσοφίας* (fr. 19 b Ross, 20 Rose<sup>3</sup>, τὰς οἰκείας διακληρωσάμενα χώρας), and it is possible that the view provided an argument to prove the uniqueness of the κόσμος, which was, as has been seen, maintained there. The whole of *de caelo* 276 a-b may be reworking of material originally in *Περὶ φιλοσοφίας*.

*Ibid.* 430 A. ἡ φύσις ἔοικε τῷ πέντε ποιεῖν ἅπαντα χαίρειν μᾶλλον ἢ τῷ σφαιροειδεῖ, καθάπερ Ἀριστοτέλης ἔλεγε. The reference may be to 286 b, where it is argued that the sphere is the first and most perfect three-dimensional shape. But nothing is said there about



nature as a productive agent or of its attachment to spherical objects. Can this again in reality be a reference to *Περὶ φιλοσοφίας*?

Finally there is a passage in which both Aristotle and (in all probability) *de caelo* are mentioned. It is one which may be held to imply a wide acquaintance with the works of the *Corpus* and it will require careful examination.

*Adversus Colotem* 1115 A. In the preceding chapter Plutarch, having ascribed to Parmenides a distinction between the unchangeable intelligible One and the shifting plurality which is the object of sensation and belief, ends by saying that Plato conveyed this distinction even more clearly in his concern with the Forms and so provided Colotes with an opening for attack. He had alleged that these doctrines of Plato (τούτοις τοῖς δόγμασιν) were followed by Aristotle, Xenocrates, Theophrastus, and all the Peripatetics. ποῦ γὰρ ὦν τῆς ἀοικήτου τὸ βιβλίον ἔγραφε, ἵνα ταῦτα συντιθεῖς τὰ ἐγκλήματα μὴ τοῖς ἐκείνων συντάγμασιν ἐντύχης μηδ' ἀναλάβης εἰς χεῖρας Ἀριστοτέλους τὰ περὶ οὐρανοῦ καὶ τὰ περὶ ψυχῆς, Θεοφράστου δὲ τὰ πρὸς τοὺς φυσικοῦς, Ἑρακλείδου δὲ τὸν Ζωροάστρην, τὸ περὶ τῶν ἐν Ἄιδου, τὸ περὶ τῶν φυσικῶς ἀπορουμένων, Δικαιάρχου δὲ τὰ περὶ ψυχῆς, ἐν οἷς πρὸς τὰ κυριώτατα καὶ μέγιστα τῶν φυσικῶν ὑπεναντιούμενοι τῷ Πλάτωνι καὶ μαχόμενοι διατελοῦσι; There follows a paragraph about Strato, who took (it is said) a view contrary to that of Plato on motion, mind, soul, and generation, and held that the universe was not animate but was initiated by chance. Τὰς γε μὴν ἰδέας, περὶ ὧν ἐγκαλεῖ τῷ Πλάτωνι, πανταχοῦ κινῶν Ἀριστοτέλης καὶ πᾶσαν ἐπάγων ἀπορίαν αὐταῖς ἐν τοῖς ἡθικοῖς ὑπομνήμασιν, ἐν τοῖς φυσικοῖς, διὰ τῶν ἐξωτερικῶν διαλόγων, φιλονεικότερον ἐνίοις ἔδοξεν ἢ φιλοσοφώτερον ἐκ \*\* (1115 BC).

Some scholars insert ἐν τοῖς λογικοῖς (Bignone, Pohlenz, Westman) or ἐν τοῖς μετὰ τὰ φυσικά (Bernays) into the last sentence. A supplement may be right but is far from being required by the fact that Proclus in a passage about Aristotle's attacks on the doctrine of Forms (in Philoponus *de aet. mundi* II.2 p. 31 Rabe) refers to these works as well as to those mentioned by Plutarch's manuscripts. He cites *de gen. et corr.* also, but no one has suggested adding that work to Plutarch's list. Bernays, *Die Dialoge des Aristoteles usw.* (Berlin, 1863) 46, argued that Proclus and Plutarch drew upon a common source and this has been widely accepted. If that is true, Plutarch's words need not imply his direct acquaintance with *EN* or the *Physics* or any other work meant by τὰ

φυσικά. But they do show him to be aware at least of the existence of works that belong to our *Corpus* and to know something of their contents.

I am not so certain that the first sentence quoted does the same for *de caelo* and *de anima*, although admitting it to be very probable. My reason for hesitation is this. Plutarch's surprise that Colotes did not consult *de caelo* and *de anima* does not accord with his belief that Aristotle's library went to Scepsis, so that the later Peripatetics had access to few of his writings (*Sulla* 26). This may excite a suspicion that he is not speaking of *de caelo* and *de anima* at all. Instead of the latter he may mean the *Eudemus*, which had an alternative title Περὶ ψυχῆς used by Plutarch himself at *Dion* 967c and attested by Ps.-Plutarch *Cons. ad Apollonium* 115 B, *Diog. L.* 5.22, *Vita Menagiana* 10, and Proclus *in Plat.Tim.* V (III p. 23.16 Diehl). There is on the other hand no evidence that the second book of Περὶ φιλοσοφίας was ever entitled Περὶ οὐρανοῦ, although it dealt with that subject (frags. 12-22 Ross). Yet possibly Plutarch intended 'what Aristotle wrote about the heavens' and expected his readers to think of Περὶ φιλοσοφίας. A motive for not so naming the dialogue but speaking of τὰ περὶ οὐρανοῦ might be to emphasise that part of it in which Aristotle was notably at odds with his master.

However this may be, and the interpretation of Plutarch's words as referring to exoteric works is no more than just possible, it is striking that this first sentence, in contrast with the last, which is concerned with the doctrine of Forms, does not make it clear which of Plato's doctrines were resisted by later philosophers. Plutarch seems to have in mind not merely the distinction between the sensible and the intelligible, but the whole range of Platonic physics. If that is so, he needed no detailed knowledge of *de caelo* and *de anima*, if those were the works adduced; it would be enough for him to know that they were critical of Plato.

Further evidence for knowledge of *de caelo* is lacking. Helmbold-O'Neil compare *de facie* 922 c, ἡ δὲ ῥύμη καὶ τὸν ἐν λίθοις ἀέρα καὶ τὸν ἐν ψυχρῇ μολίβδῳ συνεκκαίει with 289 a 21, πέφυκε γὰρ ἡ κίνησις ἐκपुरοῦν καὶ ξύλα καὶ λίθους καὶ σίδηρον... οἷον καὶ ἐπὶ τῶν φερομένων βελῶν· ταῦτα γὰρ αὐτὰ ἐκपुरοῦται οὕτως ὥστε τήκεσθαι... Both authors refer to the heating of missiles, caused in reality by their arrest not by their flight, but this was a fact of common knowledge, for which Plutarch had no need to consult Aristotle. Their other five 'parallels' have even less evidential value.

The Lamprias-catalogue has an entry (no. 44) Περὶ τῆς πέμπτης ούσιας, βιβλία ε'. This is an unexpectedly voluminous treatment,

which might be thought to imply a profound study of *de caelo*. I have suggested (Loeb *Moralia* XV.10) that πέμπτης is a dittography (or an intruded misreading, as I would now add) of περί τῆς. If the reading is, however, as I now incline to accept, correct and the title refers to a genuine work of Plutarch (the catalogue includes a number of *spuria*), he may still have been concerned only with Περὶ φιλοσοφίας, in which the 'fifth substance' played an important part (Cic. *Ac. Pr.* 1.26, *Tusc.* 1.22, 1.65), or indeed not directly with Aristotle at all, but with problems traditional among Aristotle's successors and still discussed in his time. It is known that Xenarchus, a Peripatetic of the first century B.C., wrote a book entitled Πρὸς τὴν πέμπτην οὐσίαν (quoted by Simplicius *de caelo* 13.22-25; 21 Heiberg), in which he attacked the arguments of *de caelo* I.2. A further point is that although we today first think of *de caelo* in connection with 'the fifth substance', it was not Aristotle's invention; a theory of five elements was accepted by some members of the Old Academy and ascribed to Plato himself or to Pythagoreans (Xenocrates fr. 53, *Epinomis* 981 B, Speusippus fr. 4; M. Baltes, *Philologus* 122 (1978) 191f.).

I conclude that it is possible, but far from certain, that Plutarch knew the contents as well as the existence of *de caelo*.

*De anima. Quaest. Plat.* 1006 D. καθάπερ Ἀριστοτέλης ὠρίσατο τὴν ψυχὴν ἐντελέχειαν σώματος φυσικοῦ ὀργανικοῦ δυνάμει ζωῆν ἔχοντος. This combines 412 a 27, ἐντελέχεια ἢ πρώτη σώματος φυσικοῦ δυνάμει ζωῆν ἔχοντος with 412 b 5, ἐντελέχεια ἢ πρώτη σώματος φυσικοῦ ὀργανικοῦ. Such definitions are part of the mental furniture of students of philosophy and are as likely, if not more likely, to come from a handbook as from reading of the original. This one is to be found in Aetius 4.2.3 and in Diog. L.5.32, with the same combination of the two phrases.

*De virtute morali* 442 B. Ταύταις ἐχρήσατο ταῖς ἀρχαῖς (sc. the Platonic tripartite division of the soul) ἐπὶ πλεον Ἀριστοτέλης, ὡς δῆλόν ἐστιν ἐξ ὧν ἔγραψεν. ὕστερον δὲ τὸ μὲν θυμοειδὲς τῷ ἐπιθυμητικῷ προσένειμεν, ὡς ἐπιθυμίαν τινὰ τὸν θυμὸν ὄντα καὶ ὄρεξιν ἀντιλυπήσεως, τῷ μέντοι παθητικῷ καὶ ἀλόγῳ μέχρῃ παντὸς ὡς διαφέροντι τοῦ λογιστικοῦ χρώμενος διετέλεσεν... Interpretation of this passage is not easy and it has been much discussed.

Plutarch appears to contrast a later stage in Aristotle's thought, when the spirited and appetitive elements in the soul were amalgamated, with an earlier, Platonic, phase in which they were distinguished, but

to insist that at all times he sharply opposed the irrational elements to the rational. Since he had already substituted the bipartite division in some exoteric works (*EN* 1102 a 2) including the early *Protrepticus* (frag. 6 Ross), some scholars maintain that ἐπὶ πλέον cannot have the temporal meaning 'for a long time'. The alternative, however, 'he made much use of', adopted by D. Babut, *Plutarque de la vertu éthique* (Paris, 1969) 139, is not without difficulty, since the only place in the surviving works where Aristotle explicitly speaks of a tripartite soul as if he accepted it is *Topica* 133 a 30, οἷον ἐπεὶ ἀνθρώπου, ἧ ἀνθρωπός ἐστι, λέγεται ἴδιον τὸ τριμερῆ ψυχὴν ἔχειν. (The concept is mentioned, but with disapproval, at *de anima* 432 b 5.) There are, however four other passages of the *Topica*, mentioned at various places by H. von Arnim, *SB Akad. Wiss. Wien* 205.4 (1927) 1-135, in which it is or may be implied: 113 a 35, 126 a 6, 129 a 12, 136 b 10. Bonitz' index supplies no more and von Arnim made the most of his five exhibits when he wrote that the tripartition is 'mentioned at numerous places' (an zahlreichen Stellen... erwähnt).

At a pinch it could be supposed that Plutarch had these five passages in mind, if he meant ἐπὶ πλέον to indicate 'much use', and this seems to be accepted by Düring, *ABT* 354-5, Babut, 138-9, and perhaps P. L. Donini, *Tre studi sull' Aristotelismo nel II secolo D.C.* (Turin, 1974) 69. The statement that Aristotle 'later' changed his opinion need not be understood to imply that he changed it at a late stage.

But this overlooks the fact that he did continue on occasion to use the Platonic tripartition, as at *EN* 1149 b 1, ὁ θυμὸς ἀκολουθεῖ τῷ λόγῳ πως, ἡ δὲ ἐπιθυμία οὐ and *Pol.* 1334 b 22, θυμὸς γὰρ καὶ βούλησις, ἔτι δὲ ἐπιθυμία καὶ γενομένοις εὐθὺς ὑπάρχει, passages inconsistent with the view that θυμὸς is a kind of ἐπιθυμία. Moreover it became part of the accepted history of philosophy that he distinguished three δυνάμεις of the soul, αἷς ἐπιθυμοῦμέν τε καὶ θυμούμεθα καὶ λογίζομεν (Galen, *Plac. Hipp. et Plat.* pp. 432.10 M, 461.5 M, 476.4 M). Porphyry even wrote παρὰ δὲ Πλάτωνι καὶ Ἀριστοτέλει ἐν τοῖς ἠθικοῖς τριμερῆς ἡ ψυχὴ λέγεται εἶναι (Stob. 1.350 Wachsmuth). Accordingly I incline to think, with Düring, *ABT* 353-5, that in saying that Aristotle made much use, or long use, of the Platonic principles Plutarch was reproducing a standard view, not giving evidence of personal study of the works of the *Corpus*. This inclination is strengthened by the fact that, like this passage from *de virtute morali*, the first chapter of *de libidine et aegritudine* (which I regard as a genuine work by Plutarch, see *Rev. de Philologie* 43 [1969] 211) associates the recognition

of θυμός as a form of ἐπιθυμία with its definition as ὄρεξις ἀντι-  
λυπήσεως. That chapter operates throughout with philosophical common-  
places. This suggests that the passage from *de virtute morali* also does  
no more than use standard accepted beliefs and is no evidence for direct  
study by Plutarch of Aristotle's treatises.

Nor is the definition of θυμός as ὄρεξις ἀντιλυπήσεως to be  
seen as directly derived in either place from *de anima* 403 a 30. It is  
there said to be the usage of the διαλεκτικοί and is regarded as super-  
ficial, nor is there any question of assimilating θυμός and ἐπιθυμία.  
The origin of Plutarch's words must be sought elsewhere.

At *EN* 1102 a 26 Aristotle writes λέγεται δὲ περὶ αὐτῆς (sc. τῆς  
ψυχῆς) καὶ ἐν τοῖς ἐξωτερικοῖς λόγοις ἀρκοῦντως ἔνια... οἷον  
τὸ μὲν ἄλογον αὐτῆς εἶναι, τὸ δὲ λόγον ἔχον. This is a modifi-  
cation of Plato's division into λόγος, θυμός, and ἐπιθυμία. It would  
not be surprising if in one of these exoteric works he had argued that  
θυμός and ἐπιθυμία could be assimilated, both being included in the  
wider term ὄρεξις. From such a statement there could be derived Seneca's  
belief, *De Ira* 1.3, in what he calls Aristotle's definition (*finitio*): *ait  
enim iram esse cupiditatem doloris reponendi*, a passage included by Rose  
and Ross among the fragments of the Πολιτικὸς. This is arbitrary, but  
some source in the exoteric works is likely enough.

*De Libidine* c. 7 <οἱ δὲ> ταύτην ἀπογόντες φιλόσοφοί φασι  
μήτε σώματος εἶναι τι μήτε ψυχῆς ἴδιον πάθος ἀλλὰ τοῦ κοινοῦ·  
τὸν γὰρ ἄνθρωπον ἦθεσθαι καὶ λυπεῖσθαι καὶ φοβεῖσθαι, τὸν  
ἄνθρωπον, οὐχὶ τὴν ψυχὴν. This may have some relation with *de anima*  
408 b 1, φασὶν γὰρ τὴν ψυχὴν λυπεῖσθαι χαίρειν, θαρρεῖν φοβεῖ-  
σθαι, ἔτι δὲ ὀργίζεσθαι τε καὶ αἰσθάνεσθαι καὶ διανοεῖσθαι...  
(b 13) βέλτιον γὰρ ἴσως μὴ λέγειν τὴν ψυχὴν ἔλεεῖν ἢ μανθάνειν  
ἢ διανοεῖσθαι, ἀλλὰ τὸν ἄνθρωπον τῇ ψυχῇ. But Plutarch will not  
have drawn it directly from that work; he knows it as Peripatetic doctrine  
and ascribes it not to Aristotle but to a plurality of philosophers.

Otherwise none of the passages adduced by Helmbold-O'Neil has any  
claim to be a source. E.g. at 1025 A Plutarch uses Plato's definition of  
φαντασία (*Soph.* 264 b), a definition rejected by Aristotle at 428 a 24.

The conclusion must be that Plutarchean knowledge of the contents of  
*de anima* remains very questionable.

*P o l i t i c s.* I can find no passage which suggests that Plutarch  
knew the *Politics*. The long list of parallels in Helmbold-O'Neil is mere-  
ly a list of places where both authors refer to the same fact, usually a

matter of common knowledge. The Laconian colonisation of Lyktos is a more out-of-the-way incident, but Plutarch's story is not in Aristotle (*muλ. virt.* 247 E and 1271 b 28). Aristotle is mentioned twice in these Plutarchean parallels, but in each case it is clear that the reference is not to the *Politics*. *De Alexandri fortuna* 329 B. ὡς Ἀριστοτέλης συν-εβούλευεν αὐτῷ. The reference is to some pseudepigraphic letter, not to 1285 a 18. *Lycurgus* 47 e Οὐ γάρ, ὡς Ἀριστοτέλης φησὶν, ἐπι-χειρήσας σωφρονίζειν τὰς γυναῖκας ἐπαύσατο, μὴ κρατῶν τῆς πολλῆς ἀνέσεως καὶ γυναικοκρατίας διὰ τὰς πολλὰς στρατείας τῶν ἀνδρῶν, ἐν αἷς ἠναγκάζοντο κυρίας ἀπολείπειν ἐκείνας, καὶ διὰ τοῦτο μᾶλλον τοῦ προσήκοντος αὐτὰς ἐθεράπευον καὶ δεσποίνας προσηγόρευον. This comes not from 1269 b 12, but from *Λακεδαιμονίων Πολιτεία*, 'haud dubie', said Immisch.

G. S. Aalders, *Mnemosyne* iv series 30 (1977) 28, 'Political Thought in Plutarch's *Convivium Septem Sapientium*' concludes on p. 39 that 'the present study has made it probable that Plutarch too was well acquainted with the Aristotelian *Politics*'. The evidence on which he relies is an alleged resemblance of 147 D and 1288 a 15, 154 F and 1318 b 6, and 155 E and 1252 b 16. Except that the second pair are both concerned in their different ways with the problem of what is the best kind of democracy, I can see nothing in common between these passages whether in language, thought, or subject-matter. I hold to the conclusion reached long ago by R. Volkman, *Leben, Schriften und Philosophie des Plutarch von Chaironea* (Berlin, 1869) 2.23, that the *Politics* were not known to Plutarch.

*N i c o m a c h e a n E t h i c s.* *QC* 704 E. δοκεῖ δέ μοι (a guest is speaking) μὴδ' Ἀριστοτέλης αἰτίᾳ δικαίᾳ τὰς περὶ θεῶν καὶ ἀκρόασιν εὐπαθείας ἀπολύειν ἀκρασίας, ὡς μόνας ἀνθρωπικὰς οὐσας. This may refer to *EN* 1118 a 1-26: (a 3) οἱ γὰρ χαίροντες τοῖς διὰ τῆς ὀψεως... οὔτε σώφρονες οὔτε ἀκόλαστοι λέγονται... ὁμοίως δὲ καὶ ἐν τοῖς περὶ τὴν ἀκοήν· τοὺς γὰρ ὑπερβεβλημένως χαίροντας μέλεσιν ἢ ὑποκρίσει οὔθεις ἀκολάστους λέγει... (a 23) περὶ τὰς τοιαύτας δ' ἡδονὰς ἢ σωφροσύνη καὶ ἡ ἀκολασία ἐστίν, ὧν καὶ τὰ λοιπὰ ζῷα κοινωνεῖ. It should however be noted that Aristotle does not here speak of ἀκρασία but of ἀκολασία and that elsewhere he distinguishes the two conceptions, *EE* 1231 a 25, οἱ δ' ἀκρατεῖς οὐκ εἰσὶν ἀκόλαστοι, *EN* 1146 b 21, 1148 a 13, b 12. The alteration may be due to Plutarch; on the other hand he may have in mind some passage in a dialogue or in the *Protrepticus*, or even in the lost *Problemata* (see

below), to which he frequently refers. In our *Problemata*, 949 b 6 operates with ἀκρασία but does no more imply Plutarch's statement: Διὰ τί κατὰ μόνας δύο αἰσθήσεις ἀκρατεῖς λέγομεν, οἷον ἀφῆν καὶ γεῦσιν; ἢ διὰ τὰς ἀπὸ τούτων γινομένας ἡδονὰς κοινὰς εἶναι ἡμῶν καὶ τοῖς ἄλλοις ζῴοις; 949 b 37 is slightly closer: Διὰ τί οἱ κατὰ τὴν τῆς ἀφῆς ἢ γεύσεως ἡδονὴν... ἀκρατεῖς λέγονται; ... (950 a 4) οἱ δὲ κατὰ τὴν ὄψιν καὶ τὴν ἀκοὴν οὐκέτι· ἢ διὰ τὸ τὰς ἀπὸ τούτων γινομένας ἡδονὰς κοινὰς εἶναι ἡμῶν καὶ τοῖς ἄλλοις ζῴοις;

Nothing is to be learned from the other passages adduced in Helmbold-O'Neil. At 333 F Plutarch tells in full a story to which Aristotle does no more than allude at 1164 a 15. At 165 D Plutarch says that Celts when drunk do not fear thunderbolts; at 1115 b 27 Aristotle says that they do not fear the waves and makes no mention of drunkenness. There are three allusions to well-known proverbs (619 A and 1155 a 34, 96 E and 1168 b 7, 94 A and 1156 b 27), one to an anecdote about Pittakos (155 F and 1113 b 31, also found at *Pol.* 1274 b 19, *Rhet.* 1402 b 10), a quotation in different contexts of a line from that popular play Euripides' *Orestes* (68 D and 1169 b 7). There is no similarity between 731 C and 1106 b 34. Finally it may confidently be doubted that Plutarch derived from 1177 b 31, οὐ χρὴ θνητὰ (sc. φρονεῖν) τὸν θνητόν, ἀλλ' ἐφ' ὅσον ἐνδέχεται ἀθανατίζειν, the remark attributed in *Septem Sapientium Convivium* 152 B to Chilon: τὸν ἄρχοντα χρῆναι μηδὲν φρονεῖν θνητόν, ἀλλὰ πάντ' ἀθάνατα.

It has been argued that the statement in *de virtute morali* 442 B that Aristotle always continued to use the bipartition of the soul (see above pp. 217ff., under *De Anima*) shows that Plutarch had read the *Nicomachean Ethics*. I have above favoured Düring's opinion that the sentence in *de virtute morali* repeats a traditional account of Aristotle's change from tripartite to bipartite psychology and does not imply direct knowledge of that work. Nor can I put faith in the conclusions of S. G. Etheridge, who in an unpublished Harvard dissertation of which a résumé is given in *HSCP* 66 (1962) 252ff. argues that Plutarch shows direct knowledge of *EN* II and VI. His case rests on this same passage 442 B, and on *adv. Colotem* 1115 B, on the uncertainty of which see above p.215, where I argue that the mention of *EN* (τὰ ἡθικὰ ὑπομνήματα) need not imply direct acquaintance.

Finally, D. Babut, *Plutarque de la vertu éthique* considers that 445 A suggests direct knowledge of *EN* 1107 b 6-8 and 1133 b 32-33. Plutarch, having shown that a number of virtues are means between opposed vices,

ends αὐτήν τε σωφροσύνην καὶ δικαιοσύνην, τὴν μὲν περὶ τὰ συμβόλαια μήτε πλέον νέμουσαν αὐτῇ τοῦ προσήκοντος μέτ' ἔλαττον, τὴν δ' εἰς τὸ μέσον ἀναισθησίας καὶ ἀκολασίας ἀεὶ τὰς ἐπιθυμίας καθιστάσαν. Babut argues that the word αὐτήν shows him to be aware of the difficulties involved in treating σωφροσύνη and δικαιοσύνη as means; they are recognised by Aristotle, a recognition which would not, he thinks, have survived in an intermediate version: 1107 b 6 ἄλλείποντες δὲ περὶ τὰς ἡδονὰς οὐ πάνυ γίνονται· διόπερ οὐδ' ὀνόματος τετυχῆκασιν οὐδ' οἱ τοιοῦτοι, ἔστωσαν δὲ ἀναίσθητοι and 1133 b 32 ἡ δὲ δικαιοσύνη μεσότης τίς ἐστίν, οὐ τὸν αὐτὸν δὲ τρόπον ταῖς ἄλλαις ἀρεταῖς.

Since Plutarch ignores the difficulties expressed by Aristotle and simply assimilates δικαιοσύνη to the other virtues, neglecting Aristotle's (admittedly obscure) argument, I doubt whether direct knowledge of *EN* is to be detected. αὐτήν simply marks the importance of σωφροσύνη and δικαιοσύνη, which form the climax of the argument. The whole of this chapter is characterised by Pohlenz (ed. Teubner) as 'Aristotelis doctrina commutata', and I would see Plutarch as following Peripatetic orthodoxy of his time (cf. φασίν, 445 A 3 and P. Moraux, *A la recherche de l'Aristote perdu* [Louvain and Paris, 1957] 89).<sup>15)</sup>

I conclude that there is no firm evidence to show that Plutarch read the *Nicomachean Ethics*.

*Metaphysics*. *De Iside* 370 E. 'Αριστοτέλης δὲ τὸ μὲν εἶδος τὸ δὲ στέρησιν, cf. 990 b, 1070 b 19, 1069 b 34, 1074 a 9, *GC* 318 b 16. Plutarch's words come in a general survey of philosophers who built their worlds from two starting points, one good, the other bad: Empedocles, Pythagoreans, Anaxagoras, Plato. I suggest that this is general knowledge rather than the result of reading *Metaphysics*. Aetius 1.3.22 has 'Αριστοτέλης... ἀρχὰς μὲν εἶδος ὕλην στέρησιν. Rose and Ross include the passage from *De Iside* as an element in frag. 6 of *Περὶ φιλοσοφίας*, somewhat hazardously. Cf. Arius Didymus fr. 3, Diels *DG* 448, τὰς ἀρχὰς ποτὲ μὲν εἶναί φησιν 'Αριστοτέλης δύο, but for him they are εἶδος and ὕλη.

*Alexander* 668 C. Alexander not only heard Aristotle's ethical and political views but also shared in his secret and more profound doctrines. After invading Asia he heard that Aristotle had published some of these and wrote to protest (his alleged letter is quoted). Aristotle wrote a letter of excuse (not quoted), saying that they were both published and unpublished.<sup>16)</sup> 'Ἀληθῶς γὰρ ἡ μετὰ τὰ φυσικὰ πραγματεῖα, πρὸς



διδασκαλίαν καὶ μάθησιν οὐδὲν ἔχουσα χρήσιμον, ὑπόδειγμα τοῖς πεπαιδευμένοις ἀπ' ἀρχῆς γέγραπται.

This shows that Plutarch knew of the existence of the *Metaphysics*: whether he had read them is another matter. I. Düring, *ABT* 286, finds it difficult to believe that the observation is based on first-hand knowledge of the *Metaphysics*. He thinks it possible that Plutarch had it from the same source as the immediately preceding spurious letters. To me it seems not impossible that Plutarch had seen a copy and decided that it was a work to be left to the specialist who could understand it.

Other passages cited by Helmbold-O'Neil offer but frail support for knowledge of the *Metaphysics*. *QC* 687 A. τροφή δὲ τῷ θερμῷ, ὡς νομίζω, ... τὸ ὑγρόν. 696 B τρέφεται μὲν γὰρ (sc. τὸ πῦρ) οὐδενὶ πλὴν ὑγρῷ. *De primo frigido* 954 E τῷ δ' ὑγρῷ τροφή χρῆται τὸ θερμόν. At 983 b 23 Aristotle suggests that Thales saw αὐτὸ τὸ θερμόν ἐκ τούτου (sc. τοῦ ὕδατος) γινόμενον καὶ τούτῳ ζῶν. This must have been a common notion,<sup>17</sup> and it recurs in the *Problemata* in wording closer to that of Plutarch: 871 b 12, ὑγρῷ μὲν γὰρ τρέφεται τὸ θερμόν and 875 a 14, τροφή μὲν γὰρ ὑγρόν τῷ θερμῷ. *De animae procreatione* 1025 E. θεωρητικῆς γε τῆς ψυχῆς οὔσης ἅμα καὶ πρακτικῆς. This has no reference to Aristotle's tripartite division at 1025 b 25, πᾶσα διάνοια ἢ πρακτικὴ ἢ ποιητικὴ ἢ θεωρητικὴ, but explains the *Timaeus* by the use of a Platonic distinction, see *Politicus* 258 e 4, τὴν μὲν (sc. ἐπιστήμην) πρακτικὴν... τὴν δὲ μόνον γνωστικὴν. The vocabulary, however, is not that of Plato; although he uses θεωρία of the soul's intellectual activity, θεωρητικός does not appear before Aristotle, with whom it is not uncommon. But the adjective is not peculiar to him; it became part of the general philosophic vocabulary, cf. Epicurus *de natura* 15.23, 16.25, 17.4, 19.16 (Arrighetti), and Diog. L. of the Stoics. τὸν γὰρ ἐνάρετον θεωρητικόν τ' εἶναι καὶ πρακτικόν (7.125). The opposition between πρακτικός and θεωρητικός came naturally to Plutarch, cf. *Mor.* 792 D, οὐ πρακτικὰς ἀλλὰ θεωρητικὰς τέχνας ἔχοντες. *Quaest. Plat.* 1002 D, καὶ ἄλλως εὐηθές ἐστι τοῖς σωματικοῖς τεκμαίρεσθαι περὶ τῶν ἀσωμάτων. This is nowhere said in 1054 b 23-1058 a 7. Nor has 927 B any resemblance to 1075 a 14ff. - 264 A, 374 A, 388 A, 1002 A, 1012 E, 1013 A, 1018 C all belong to standard arithmetical speculation and are not to be derived from 1091 a 23-29.

*Problemata*. There are eight places, all but one in *Quaestiones Convivales*, where Plutarch names Aristotle as his authority (458 F, 627 C, 627 D, 656 C, 659 D, 694 D, 696 D, 720 D) and, if he be allowed

some inventiveness and some inaccuracy of memory, the reference might be to the *Problemata* of our *Corpus* (875 a 34, 933 a 18, 932 b 25, 871 a 11, 863 a 28, 888 a 1-8 and 889 a 36, 874 a 29, 903 b 14). On the other hand when at 734 C he cites Aristotle's Προβλήματα φυσικά, the reference is not to our *Problemata*; Aulus Gellius, moreover, notes (3.6) the identity of 724 E with a passage in the seventh book of Aristotle's *Problemata*, a passage not to be found in our work. Again, there are eleven places, seven of which are in *Quaestiones Convivales*, where Aristotle is named (133 F, 627 A, 635 B, 652 A, 656 B, 690 C, 690 F, 702 B, 912 A, 932 B, 949 C) and the matter is suitable to a collection of problems but is not in our *Problemata*.

Our *Problemata*, although entitled by the mss. Ἀριστοτέλους φυσικά προβλήματα, are not the work of Aristotle. H. Flashar, who added a most valuable commentary to his translation (*Aristoteles Problemata Physica* [Berlin, 1962] = E. Grumach, *Aristoteles' Werke in deutscher Übersetzung*, vol. 19), argues (pp. 357-8) that it was first put together in the Peripatetic school in the period 270-230 B.C. and later expanded. It may be guessed, although it cannot be proved, that its composers used the work known to Plutarch and Gellius as Προβλήματα φυσικά; if so, it is likely that Plutarch drew on that work only and did not supplement it from our *Problemata*. The fact that where there is a parallel with the latter he often has more or different detail is to be explained not by his own inventiveness but by abbreviation or alteration made by the Peripatetic compiler.

It remains to consider whether the work used by Plutarch and called by him Προβλήματα φυσικά was in fact Aristotle's. Better would be to ask whether it was contemporary with Aristotle, for he may have had the co-operation of pupils, just as he must have had in the preparation of his 138 *Constitutions*. That there was in his day such a collection of problems is certain; several times in his genuine works he refers to what has been said ἐν τοῖς προβλήμασιν (see Bonitz's Index p. 103 b), clearly indicating a book to which his hearers had access.

Flashar denies (p. 313) that Plutarch or Gellius can have known this collection; his grounds seem to me inadequate, but one must admit it to be possible that the original work was expanded by Aristotle's successors, while they maintained his name as author; in that case Plutarch could have used the expanded version. Diogenes Laertius' list of Aristotle's works includes Προβλήματα φυσικά in 70 rolls and also in 38.<sup>18)</sup> Flashar asserts that Plutarch used the edition in 70 rolls, which he sees as an

expansion of the Aristotelian original. One cannot, to my mind, assert anything with confidence; it is not even impossible, if Aristotle was extensively helped by his pupils, that the original had 70 volumes.

It has here been argued that Plutarch made much use of the lost Προβλήματα φυσικά. Probably it was also his source in many places where he does not mention Aristotle. Often there can be no clue, but similarity with a passage in our *Problemata* may indicate that his material is drawn from the other work.

By its very nature a collection of problems cannot be a finalised work. New answers and new problems may always be added. Incompleteness would therefore be no obstacle to its being put into general circulation.

*H i s t o r i a a n i m a l i u m*. That Plutarch or a source for his *de sollertia animalium* knew this treatise is certain. Aristotle is three times adduced as an authority, and the coincidence of wording with *Historia Animalium* springs to the eye. 973 A, ἤδη πειστέον Ἄριστοτέλει... ὀφθῆναι γὰρ ἀηδόνα νεοσσὸν ἕδειν προδιδάσκουσαν ~ 536 b 18, ὤπται καὶ ἀηδῶν νεοττὸν προδιδάσκουσα. 979 C-D, ὅπου γὰρ ἂν αὐτὸν (sc. τὸν θύννον) χειμῶνος αἱ τροπαὶ καταλάβωσιν, ἀτρεμεῖ καὶ διατρίβει περὶ τὸν αὐτὸν τόπον ἄχρι τῆς ἰσημερίας... (E) μάρτυς Ἄριστοτέλης ~ 598 b 25, ὅταν τροπαὶ χειμεριναὶ γένωνται, οὐκέτι κινουῦνται, ἀλλὰ ἡσυχάζουσιν, ὅπου ἂν τύχῃσι καταληφθέντες, μέχρι ἰσημερίας. 981 F, φόφυλακοῦντες, ὡς ἰστόρηκεν Ἄριστοτέλης ~ 621 a 23, φόφυλακεῖ παραμένων.

A less similar pair is to be recognised in 956 C, τὰ σαρκοβόρα τῶν ζῴων, ὧν ἐνιά φησι μὴ πίνειν Ἄριστοτέλης ~ 593 b 29 (cf. 601 a 32), οἱ δὲ γαμψώνυχες καὶ ἄποτοι πάμπαν, εἰ μὴ τι ὀλίγον γένος καὶ ὀλιγάκις. There is another possible reference in *Quaestiones Naturales* 917 D ἢ καὶ τὸ λεγόμενον ὑπ' Ἄριστοτέλους ἀληθές ἐστιν, ὅτι 'χλούνην' Ὅμηρος ὠνόμασε σὺν τὸν μόνορχιν; τῶν γὰρ πλείστων φησὶ προσκνωμένων τοῖς στελέχεσι θρύπτεσθαι τοὺς ὄρχεις. ~ 578 b 1, Ὅμηρος ἐποίησεν ἑρέψεν ἐπὶ χλούνην σὺν ἀγριον... γίνονται δὲ τομίαι διὰ τὸ νέοις οὖσιν ἐμπίπτειν νόσημα κνησμον εἰς τοὺς ὄρχεις· εἶτα ξυόμενοι πρὸς τὰ δένδρα ἐκθλίβουσι τοὺς ὄρχεις. But since τομίας does not mean μόνορχις one may suspect another source, perhaps in the work Περὶ Ὁμήρου, three times quoted by Plutarch elsewhere. H. Flashar, *Aristoteles Problemata Physica* 307, suggests Προβλήματα φυσικά, since the surviving *Problemata* have at 896 a 22-24 something similar to 917 B-C, which may be derived from that other work. The suggestions are not necessarily incompatible, for

the work of Homer is sometimes called Ὀμηρικὰ ζητήματα and may have been a section of the Προβλήματα.

Frag. 72 Sandbach, on the other hand, ultimately derived from Plutarch's lost *Commentary on Hesiod*, may refer to HA: Ἀριστοτέλης δέ φησι ψευδός εἶναι τὸ κατὰ τοὺς πολὺποδας· αὐτοὺς γὰρ ἑαυτοὺς μὴ κατεσθίειν ἀλλ' ὑπὸ τῶν παγούρων κατεσθίεσθαι ~ 591 a 4 ὅτι δὲ λέγουσί τινες, ὡς αὐτὸς αὐτὸν ἐσθίει, ψευδὲς (read ψευδός with the mss. P and D<sup>a</sup>) ἐστίν· ἀλλ' ἀπεδηδεσμένας ἔχουσιν ἔνιοι τὰς πλεκτάνας ὑπὸ τῶν γόγγρων. Plutarch probably wrote γόγγρων, as he did at 978 F, and the word has been corrupted in the vicissitudes to which his note has been subjected.

There are a number of passages where Aristotle is not named, but where similarity of wording strongly suggests that HA is Plutarch's source. 978 A, τὴν γὰρ καλουμένην μύτιν ~ 524 b 14, ἦν καλοῦσι μύτιν. 970 A, ἥδη δὲ διὰ γῆρας ἀφειμένων ~ 577 b 30, ἀφειμένος ἥδη διὰ τὸ γῆρας. 981 E, οἱ δὲ πλεῖστοι τὸν ἀνθίαν ἱερὸν εἶναι καὶ λέγεσθαι νομίζουσιν· ὅπου γὰρ ἂν ἀνθίας ὀφθῆ, θηρίον οὐκ ἔστιν, ἀλλὰ θαρροῦντες μὲν οἱ σπογοθῆραι κατακολυμβῶσι, θαρροῦντες δὲ τίκτουςιν οἱ ἰχθύες... ~ 620 b 33, ὅπου δ' ἂν ἀνθίας, ἦ, οὐκ ἔστι θηρίον· ᾗ καὶ σημείψ χρώμενοι κατακολυμβῶσιν οἱ σπογοεῖς καὶ καλοῦσιν ἱεροῦς ἰχθύς τούτους. 979 E, ὅθεν ἐμβάλλουσιν (sc. θύννοι) εἰς τὸν Πόντον ἐν δεξιᾷ τῆς γῆς ἐχόμενοι, καὶ τούναντίον ὅταν ἐξίωσιν· ἐμφρόνως πάνυ καὶ νουνεχῶς ἀεὶ τὴν τοῦ σώματος φυλακὴν ἐπὶ τῷ κρείττονι ποιούμενοι τῶν ὀφθαλμῶν ~ 598 b 19, εἰσπλέουσι δ' οἱ θύννοι ἐπὶ δεξιᾷ ἐχόμενοι τῆς γῆς· ἐκπλέουσι δ' ἐπ' ἀριστερά· τοῦτο δὲ φασὶ τινες ποιεῖν ὅτι τῷ δεξιῷ ὀξύτερον ὀρῶσι... In Aristotle this habit of the tunny is not locally restricted, but the greater part of the chapter is concerned with entry to the Black Sea.

There are two passages in *Soll. an.* which name Aristotle but do not refer to HA. 977 A, Ἀριστοτέλης δέ φησι μηδὲν ἐν τούτοις (*Iliad* 24.80-82) λέγεσθαι σοφὸν ἢ περιττὸν ἀλλὰ τῷ ὄντι κερᾶτιον περιτίθεσθαι πρὸ τοῦ ἀγκίστρου περὶ τὴν ὀρμιάν, ἐπεὶ πρὸς ἄλλο ἐρχόμενοι διεσθίουσι. A. Platt, *CQ* 5 (1911) 255, wished to replace the name of Aristotle by that of Aristarchus. But the change is not needed; Aristotle could have made the statement in his *Περὶ Ὀμήρου* or *Ὀμηρικὰ ζητήματα*. 978 D, ᾗ σοφίσματι καὶ τὴν σηπίαν χρῆσθαί φησιν ὁ Ἀριστοτέλης. The source of

this is quite obscure.

*HA* is one of the few works of the *Corpus* to find a place in Diogenes Laertius' list of Aristotle's writings (no. 102).

*Meteorologia*. *QN* 911 E, ἡ γέγονεν ἄποτον καὶ πικρὸν τὸ ὕδωρ (sc. τῆς θαλάττης), ὡς Ἀριστοτέλης φασίν, ἀναμίξει κατακεκαυμένης γῆς; The only place where anything similar is to be found is *Meteor.* B 358 a 14, διὸ καὶ τὴν θάλατταν τινες ἐκ κατακεκαυμένης φασὶ γενέσθαι γῆς. One may however hesitate to see *Meteor.* as Plutarch's source. There are two other references to Aristotle in *QN*, at 912 A and 914 F; they have no parallels in his surviving work and it is plausible to see in them allusions to Προβλήματα φυσικά, of which Plutarch made much use in *Quaestiones Convivales*; with that collection *QN* has many points of contact. Accordingly I think it likely that Προβλήματα were the source of 911 E also.

Other parallels in Helmbold-O'Neil are imperfect or trivial, with one possible exception: 913 C, πολλοὶ δὲ καὶ κηρίνοις ἀγγείοις ἀναλαμβάνουσιν ἐκ τῆς θαλάττης ὕδωρ γλυκὺ διηθούμενον, ἀποκρινομένοι τοῦ ἀλυκοῦ καὶ γεώδους. A long account of this practice is given at 358 b 35-359 a 5, ending with the words ὥσπερ γὰρ δι' ἡμοῦ τὸ γεῶδες ἀποκρίνεται κτλ. There is a rather similar account at *Hist. An.* 590 a 22, but it does not display the same verbal likeness. For the rest all the passages for which a source in *Meteor.* is conceivable refer to facts of common experience, e.g. that in a double rainbow the outer bow is fainter than the inner (937 B and 375 a 31). The same may be true of *QN* 914 B and 358 b 6, not noted by Helmbold-O'Neil, both of which refer to the warmth of a rough sea.

This evidence hardly makes a strong case for knowledge of *Meteor.*, but a little weight is added by the fact that three passages of *QN* (911 E, 913 C, 914 B) have their parallels in a short stretch of that work (358 a 14-359 a 5).

\*

There are four passages in which Plutarch mentions Aristotle in conjunction with other philosophers; I should myself be more inclined to see in them acceptance of current belief than evidence of his own study of original texts.

*De comm. not.* 1069 A ἐλήρει δ' Ἀριστοτέλης, ἐλήρει δὲ Ξενοκράτης, ὠφελεῖσθαι μὲν ἀνθρώπους ὑπὸ θεῶν, ὠφελεῖσθαι δ' ὑπὸ γονέων, ὠφελεῖσθαι δ' ὑπὸ καθηγητῶν ἀποφαινόμενοι... Nowhere in our Aristotle is this said, although the care of men by the gods is

mentioned at *EN* 1179 a 24, the love of parents for their children at 1161 b 19, and the value of teaching everywhere taken for granted. But the threefold source of help may have occurred in some exoteric work, e.g. *Protrepticus*.

*De virtute morali* 448 Α αὐτός τ' Ἀριστοτέλης Δημόκριτός τε καὶ Χρῦσιππος ἔνια τῶν πρόσθεν αὐτοῖς ἀρεσκόντων ἀθορύβως καὶ ἀδήκτως καὶ μεθ' ἡδονῆς ἀφεῖσαν. Unfortunately there is no clue what changes of mind Plutarch means, and it is impossible to disprove the belief of D. Babut, *Plutarque de la vertu éthique* 160-1, that he discovered them himself.

*Adv. Colotem* 1111 D, οὐχὶ καὶ Πλάτωνι συνέβαινε καὶ Ἀριστοτέλει καὶ Ξενοκράτει χρυσὸν ἐκ μὴ χρυσοῦ καὶ λίθον ἐκ μὴ λίθου καὶ τάλλα γενναῖν ἐκ τεσσάρων ἀπλῶν καὶ πρώτων ἅπαντα;

*De comm. not.* 1069 E, 'πόθεν οὖν,' φησὶν (sc. Χρῦσιππος) ἄρξωμαι; καὶ τίνα λάβω τοῦ καθήκοντος ἀρχὴν καὶ ὕλην τῆς ἀρετῆς, ἀφείς τὴν φύσιν καὶ τὸ κατὰ φύσιν; πόθεν δ' Ἀριστοτέλης, ὃ μακάριε, καὶ Θεόφραστος ἀρχονται; τίνας δὲ Ξενοκράτης καὶ Πολέμων λαμβάνουσιν ἀρχάς; There are several places where Cicero links together Aristotle, Theophrastus, Speusippus, Xenocrates, and Polemon, or four of them, as agreeing on ethical doctrine: *Fin.* 4.3, *Tusc. Disp.* 5.30; 39, 87, *De legibus* 1.37. This is no doubt the result of Antiochus' efforts to minimise differences between Academics and Peripatetics. I think that in neither of these passages do Plutarch's words imply more than acceptance of a widely-held view; they arise from current beliefs about fourth-century philosophers not from first-hand study of their works. For agreement of Aristotle and Xenocrates on nature as the starting-point for morality compare *Cic. Fin.* 4.15.

#### IV

We will now turn to those works of the *Corpus*, connexion with which is suggested by Helmbold-O'Neil without their citing any passage in which Aristotle is explicitly named.

*Rhetoric.* In most of the passages listed in *Plutarch's Quotations* the two authors differ so widely that there is no possibility of influence. Five deserve attention. At 1087 B τὸ ἕαρ ἔξαιρεῖν is shown by the addition of ὧς φασὶ to have become a proverbial phrase, not learned from 1365 a 32 or 1411 a 3; it may have been invented by Pericles, but it was already known to Herodotus, 7.162. Pittacus' law on drunkenness, quoted at 155 F; and mentioned three times by Aristotle (see above on *Nicomachean Ethics*), one of these occurrence being at *Rhet.* 1402 b 12, must have been

an item of popular knowledge; it is retailed by Diogenes Laertius 1.76. Similarly 661 D and 1404 b 20 (not listed) allude independently to common knowledge. But there are three anecdotes told by Plutarch which appear in Book III of the *Rhetoric* and nowhere else: 727 D and 1406 b 15, Gorgias and the swallow, 803 A and 1411 a 4, advice not to make Greece one-eyed, 803 A and 1411 a 15, Pericles called Aegina τὴν λήμην τοῦ Πειραιῶς. Whether he had them from that source or from some intermediary must be uncertain. *Rhetoric* III, which is an independent treatise, may appear in Diogenes Laertius' list as περὶ λέξεως α'β'. This is the only evidence that it was available before the time of Andronicus.<sup>19)</sup>

*Poetics*. I do not know on what grounds Ziegler declared that knowledge of the *Poetics* could be traced in *de audiendis poetis*. A. Rostagni, *Riv. fil.* 55 (1927) 159-68, argues convincingly that the source of three passages (16 C-D and 17 D) that have parallels of a sort in the *Poetics* was in fact the dialogue Περὶ ποιητῶν. D. W. Lucas, *Aristotle, Poetics* xxiii, writes 'there is no passage earlier than the fourth century A.D. of which it can be asserted with confidence that it is derived directly from the *Poetics*.' The only passage (347 A) mentioned by Helmbold-O'Neil is not to the point.

*De plantis*. At *QC* 684 C a speaker says that the fig is the only tree that has no flower. 828 b 40 states that palms, figs, and similar trees have no flowers. This provides no evidence for dependence.

*De partibus animalium*. No evidence here either. At *QC* 698 A-B Plutarch gives his source - Erasistratus, at 699 D-F it is Dioxippus. 684 C-D is quite different from 677 a 20 and *de facie* 978 A is clearly not derived from 679 a 1.

*Parva naturalia*. *QC* 663 B makes use, like 445 a 18, of the argument that a composite body will require a compound food. This is so obvious that there is no need to suppose any connection between the two passages.

*Mirabiles auscultationes*. *De Iside* 380 F: The Thessalians honour storks, banishing those who kill them, since they once appeared and destroyed a plague of snakes. This could come from 832 a 4. Pliny has the same story (*NH* 10.62) and lists Aristotle among his authorities for that book.

*QC* 659 C, like 834 b 28, reports that workers in copper-mines gain benefit for their eyes and regenerate lost eye-lashes, but adds an explanation, which has the appearance of belonging to the report, but which is not in Ps.-Aristotle. I think it unsafe, on this evidence, either to affirm or to deny that Plutarch knew the work.

*De virtutibus et vitiis. De mundo.* I do not know why Düring, *ABT* 355, says that Plutarch 'obviously regarded' these works as genuine.

## V

My conclusion is that Plutarch or his sources knew of *Topica*, *Metaphysics*, *Nicomachean Ethics*, *Historia Animalium*, *Rhetoric III*, and probably of *De Caelo* and *De Anima*. Direct acquaintance with the contents is certain only for *Historia Animalium* and *Rhetoric III*, both books for the use of which before his time there is some evidence. As regards other works of the *Corpus* there is no cogent reason for belief that any were known to Plutarch or his sources. There are grounds, but they are indecisive, for seeing the influence of *Meteorologica* and *Mirabiles Auscultationes*.

By way of contrast his knowledge, direct or indirect, of works now lost was extensive. The list is given above, p.210. It is to be noted that *Περὶ φιλοσοφίας* makes a somewhat uncertain appearance. But I have suggested that there may be references to that work at 389 F, and 424 B (p. 214).

Two inferences may be drawn from this contrast. The first is that even after Andronicus had called attention to the works of Aristotle which we know possess, they did not become part of the reading to be expected of a man with a serious interest in philosophy. Whether Diogenes Laertius had a serious interest in philosophy may be disputed, but it is noteworthy that he is ignorant of Andronicus' canon. The second is this. If they could be neglected after Andronicus, it is probable that they were neglected before. It is well-known that Cicero, *Topica* 3, regrets contemporary lack of interest in Aristotle: his words are *qui ab ipsis philosophis praeter admodum paucos ignoretur, quibus eo minus ignoscendum est quod non modo rebus... adlici debuerunt sed dicendi quoque incredibili quadam cum copia tum etiam suavitate*. The last words show that he is reproaching the philosophers with neglect of the exoteric works: the few who are excepted from his condemnation may have read these, and not the treatises. It cannot be inferred that he knew, at the date when he wrote the *Topica*, of any philosophers who were concerned with these school-works. Ignorance of them, alleged by Plutarch also in the passage of *Sulla* with which this article began and by Strabo (13.1.54 p. 608) in a parallel account,



may have been a creeping disease, a case of ever increasing neglect, or it may be that from the beginning they had by and large escaped attention. To this problem I intend to return in another article.<sup>20)</sup>

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#### NOTES

1) I think it less probable that Plutarch meant that their copies were unreliable.

2) Andronicus' date is disputed. The careful discussion in P. Moraux, *Der Aristotelismus bei den Griechen* (Berlin and New York, 1973) 1.45-58, comes to the conclusion that he belonged to the first half of the 1st century B.C. He drew up lists (πίνακες) of Aristotle's works (Plutarch, *Sulla* 26), sometimes at least discussed their authenticity (Ammonius, *de interpretatione* 5.24ff.), and brought together related treatises (Porphyry, *Vita Plotini* 24). Scholars speak of his 'edition'; I have more cautiously rendered Plutarch's phrase εἰς μέσον θεῖναι by 'made available'. The contents of this 'edition' are unknown; it need not have been co-extensive with his lists; on the other hand there is no reason to suppose that it was identical with our *Corpus*.

3) D. Babut, *Plutarque et le Stoïcisme* (Paris, 1969) 28-33, 225-238, approved by H. C. Cherniss in Loeb edition of Plutarch's *Moralia*, xiii, 2, p. 398.

4) 'Selbstverständlich hat P. Aristoteles gut gekannt. Allerlei wichtige Nachrichten über ihn stehen in den Vitae, besonders der des Alexander, zitiert sind Physik, Metaphysik, Topik, De caelo, De anima, Ethik, Politik, Ἀθηναίων πολιτεία, besonders häufig aber die (von ihm für echt gehaltenen) Problemata, einmal auch die Mirabiles auscultationes. Kenntnis der Poetik ist in De aud. poet. zu spüren.'

5) Henceforward these two works will be referred to as Düring *NHT* and Düring *ABT*.

6) *Der Aristotelismus usw.* 1.42: 'andere Philosophen und Gelehrten wie etwa Seneca, Quintilian, Lukian oder Plutarch sich ebensowenig wie er mit diesen Schriften im Original befassten.'

7) Although Helmbold-O'Neil's title is misleading, I acknowledge a great debt to their book, without which this article could not have been written.

8) Cf. Hesiod *Aspis* 395, Virgil *E.* 5.77, and *PLG* 3.316 Bergk, μακρορίζομέν σε, τέττιξ, ὅτι δενδρέων ἐπ' ἄκρων, ὀλίγον δρόσον πεπωκώς κτλ.

9) I exclude purely biographical mentions (26 B, 53 D, 78 D, 327 E, 331 E, 472 E, 503 A and B, 544 F, 1097 B, 1126 C and F, *Alcibiades* 234 d, *Cato* 354 a, *Alexander* 667 f, 695 a, 696 d, 707 a) and passages where the name occurs in a quotation from another author (604 D and 1045 A).

10) This seems to be the same as the work elsewhere called Ὀμηρικὰ ζητήματα (see below and *Vita Marciana*) or Ὀμήρου (or Ὀμηρικά) προβλήματα (*Vita vulgaris*) or Ὀμηρικὰ ἀπορήματα (Phrynichus s.v. βασι-

λίσσα). For ἀπορήματα as an alternative to προβλήματα cf. ZPE 33 (1979) 9.

11) Often supposed (e.g. by Rose and Ross) to mean Περὶ φιλοσοφίας, bk i, but taken by Düring, *ABT* 68, to be the items 20-24 in Diogenes Laertius' list of Aristotle's writings. It is not clear what R. Walzer, *Aristotelis Dialogorum fragmenta* (Florence, 1924) 66, means by 'pertinent ad formam, minime ad materiam dialogorum, cf. Platonem ἐν τοῖς Σωκρατικοῖς.'

12) I find puzzling the reference to Thrasymachus' Ὑπερβάλλοντες, a work not mentioned elsewhere, and about which nothing is known. There is no other evidence that his teaching on rhetoric, although recognised to have been important in its day (Cic. *Orator* 40, Dion. H. *Isaeus* 20), was still used in Plutarch's time. But Dionysius of Halicarnassus had access to one of his works, from which he quotes (*Demosthenes* 3: DK. B.1), and Plutarch may have seen Ὑπερβάλλοντες, whatever it was.

13) P. Moraux, *Der Aristotelismus* 435-6, concludes that Arius Didymus did not use Aristotle at first hand and (443) that his sources were ignorant of the work of Andronicus.

14) Editors print this sentence with the change of εἰς to Wyttenbach's εἰς without any indication of doubt. It appears to me to lack construction. Ἰσὼς.. ὄντας an accusative absolute (Schwyzer, *Gr. Gr.* 2.402) or dependent by most unusual syntax on λέγοντα? I suspect that some words have fallen out. Mr D. A. Russell suggests to me that εἰς may be sound, εἰς πέντε meaning 'as many as five'; I should prefer to emend, not to εἰς, but to ἔστι. If τι disappeared before π by haplography, εσθ would easily become εισθ.

15) This has now been finally established by F. Becchi, *Prometheus* 4 (1978) 261-280, 'L'Aristotelismo fonzionale in... Plutarco', who firmly rejects the use of *EN*, *EE*, or *MM*. Direct knowledge of Aristotle is denied by P. L. Donini also, *Tre studi sull' Aristotelismo nel II secolo D.C.* (Turin, 1974), 63-80, who concludes that it must be admitted that there is no direct connection between *de virtute morali* and the ethical works of the *Corpus* (p. 80).

16) M. Plezia, *Aristotelis privatorum scriptorum fragmenta* (Leipzig, 1977) E 6a, with bibliography.

17) Cf. Aristotle *Meteor.* 354 b 33, ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὑγρῷ.

18) The origin of this list is much disputed, but the most likely answer is that it represents the contents of the library at Alexandria and was transmitted by Hermippus, pupil of Callimachus. If so, Flashar's guess that the 70 vols. had been assembled by Andronicus must be wrong. It is more likely that Andronicus placed our *Problemata* in his canon and so secured their survival.

19) It was not known to Cicero, Düring *NHT* 38, *Aristoteles* 124, but it was read by Dionysius of Halicarnassus (*Ep. ad Amm.* 8, *comp. verb.* 197-8). O. Angermann (Diss. Leipzig, 1904) 13-27, reprinted in *Rhetorika*, ed. R. Stark (Hildesheim, 1968, 224-238) argues convincingly that it was not directly used by Demetrius Περὶ ἑρμηνείας (of uncertain date, but perhaps first half of the first century B.C.) or by Archedemus, whom Demetrius quotes and who has been identified by a quite uncertain guess with the Stoic of the late second century (*SVF* 3 p. 262); the same view of Demetrius is taken by F. Solmsen, *Hermes* 66 (1931) 243 (*Rhetorika* 287). Doubtless Aristotelian elements were preserved and modified among Peripatetic writers on rhetoric.

20) My thanks are due to Mr D. A. Russell, to whom this article is indebted for criticisms and suggestions. He has no responsibility for its opinions or possible mistakes.