

SYMPOSIUM PLATONICUM THERENSE
JUNE 25 – JULY 1, 2001

APOSTOLOS L. PIERRIS

Pythagoreanism in the Meno and Platonic Development

Πλάτων δὲ καὶ ἐν τούτοις πυθαγορίζει
[Plutarchus], Epitoma, II,6,6 = Diels, DG p. 335.3-4

[Corrected and partly supplemented version]

This paper will be tripartite in structure. In a short first part I shall indicate what appears to be Aristotle's idea of Platonic development. In the main middle section, Pythagorean factors in the Meno will be detected and analyzed. And then the question as to the "meaning" of this dialogue will be addressed in the final part, what main point, namely, if anything, Plato wanted to bring to his readers' awareness by writing and publishing this work. The intimate connection among these three parts will become manifest as they are unfolded.

I
In his critical history of philosophy (Metaphysics A, and further M and N), Aristotle clearly and

unmistakeably (however we may interpret or account for it) considers Plato (just as his immediate successors in the Old Academy) a sort of Pythagorean. By Pythagoreanism in this paper I shall mean basically what Aristotle signified, when he described the proper and peculiar characteristic of that “school” of thought: οἱ δὲ Πυθαγόρειοι δύο μὲν τὰς ἀρχὰς κατὰ τὸν αὐτὸν εἰρήκασι τρόπον (i.e. one ἐν ὕλης εἶδει, the other τὴν ὅθεν ἡ κίνησις - this being Aristotle’s reduction (συνάγειν) of what the previous thinkers expressed μορυχώτερον, to his systematic theory of causality), τοσοῦτον δὲ προσεπέθεσαν ὃ καὶ ἰδίον ἐστὶν αὐτῶν, ὅτι τὸ πεπερασμένον καὶ τὸ ἀπειρον καὶ τὸ ἐν οὐχ εἰτέρας τινὰς ὡθήθησαν εἶναι φύσεις, οἷον πῦρ ἢ γῆν ἢ τι τοιοῦτον ἕτερον, ἀλλ’ αὐτὸ τὸ ἀπειρον καὶ αὐτὸ τὸ ἐν οὐσίαν εἶναι τούτων ὧν κατηγοροῦνται, διὸ καὶ ἀριθμὸν εἶναι τὴν οὐσίαν πάντων (Met. 987a13-19). Aristotle furthermore associates to this, let us say, “mathematization” of reality, the beginning of the systematic search for definitions of the essential nature of things (καὶ περὶ τοῦ τί ἐστὶν ἤρξαντο μὲν λέγειν καὶ ὀρίζεσθαι, 987a20-21), although their treatment was simplified (λίαν δ’ ἀπλῶς ἐπραγματεύθησαν, *ibid.*). The simplicity of their definitional procedure consisted, according to Aristotle, first in that their definitions were touching superficially the real essence of things, and secondly, and particularly, in that they took the first term of a series as the essence of the common character of the series (Formulaically put, the essence of F, or of F-ness, in the F-series F1, F2, F3, ..., Fn, ... is F1): ὠρίζοντό τε γὰρ ἐπιπολαίως, καὶ ὥς πρῶτον ὑπάρξειεν ὁ λεχθεὶς ὅρος, τοῦτ’ εἶναι τὴν οὐσίαν τοῦ πράγματος ἐνόμιζον, ὥσπερ εἰ τις οἴοιτο ταῦτόν εἶναι διπλάσιον καὶ τὴν δυάδα διότι πρῶτον ὑπάρχει τοῖς δυοῖν τὸ διπλάσιον. ἀλλ’ οὐ ταῦτόν ἴσως ἐστὶ τὸ εἶναι διπλασίῳ καὶ δυάδι (987a22-26). The bearing of this on the theory of forms, esp. in connection with the difficulty of explaining their relationship to existents in space and time, is evident. As it is its relevance to the Aristotelian notion of πρὸς ἐν λέγεσθαι, as a means of avoiding such difficulties in some appropriate cases.

By employing here the above Aristotelian understanding of fundamental Pythagoreanism, I accept the implication that this was the relevant and dominant form of Pythagorean Philosophy in the 5th century, although I have argued elsewhere that such a construal is inapplicable to (or, at least, seriously misleading for), 6th century Pythagoreanism (and also explained how the transformation came about).

In his account of the PrePlatonic (and not Presocratic) philosophy, Aristotle lays the leading emphasis on the Pythagoreans. The Eleatic singularity is fully acknowledged (986b8 – 987a2): but he highlights the fact that Parmenides, the more penetrating Eleatic (μᾶλλον βλέπων 986b 28), was obliged to postulate himself dualism in his theory of the sensible world (ἀναγκαζόμενος δ’ ἀκολουθεῖν τοῖς φαινομένοις 986b 31). Aristotle recapitulates the point and significance of Pythagoreanism (987a2-28) just before he turns his analytic attention to what he clearly considers as a new phase in philosophy, Plato (and his Academy).

Μετὰ δὲ τὰς εἰρημένας φιλοσοφίας ἡ Πλάτωνος ἐπεγένετο πραγματεία, τὰ μὲν πολλὰ τούτοις ἀκολουθοῦσα, τὰ δὲ καὶ ἴδια παρὰ τὴν τῶν Ἰταλικῶν ἔχουσα φιλοσοφίαν (987a29-31). Who the “Italics” are is clear from what follows. Aristotle seems to ascribe implicitly to the Platonic “systematic treatment of things”, (πραγματεία is significantly used in this connection to differentiate the Platonic “system” from the preceding philosophical endeavours), a certain eclecticism. Many characteristics of it were taken up, we are told, or were elaborate follow ups, from those previous philosophies, while its peculiar tenets came from the “Italics”. These Italics are identified afterwards as Pythagoreans (987b11; b23; b31; and, definitively, 988a26, where the “Italics” are credited with making the ἀπειρον principle of reality). For one reason or another, and probably because he did not thought of it as such a cardinal contribution

to the history of philosophy, Aristotle discounts, in this respect, too, the Eleatics.

The peculiar identity (τὰ ἴδια) of Platonism is, then, according to Aristotle, its Pythagoreanism. Furthermore, Aristotle is crystal clear about the basic structure of that system, as well as of its historical genesis: here again the essence of the system and its origination (growth) reveal the same reality from alternative points of view, one systematical, the other historical; both points of view combine in the concept of φύσις.

The general structure of the Platonic system is described by Aristotle in two fundamental doctrines (with one substantial corollary):

1) There are separate ideas of particular things exhibiting a common character ("Theory of Forms"). In terms of the series-model that I used above, there is an F per se for every series F1, F2, ..., Fn, ..., and this F (not F1) is the essence of all F's. (There are certain qualifications to this general proposition, but they do not affect its fundamental significance).

2) The ideas are (ideal) numbers. The principles of numbers are the principles of reality. Pythagorean Dualism provides these two principles, with a Platonic qualification (the second principle is itself dual rather than unitary) and a complication (the "matter" of the sensible things is the same second principle as the substratum for the ideas, 988a11-14; cf. Physica 209b11-16).

The significant corollary from (1) and (2) is that the numbers as causes of being cannot for Plato be the mathematical numbers, for these are many of a kind. Thus (3) in between ideas = ideal numbers and material reality, there lie the mathematical (through which ideas shape the sensible world by imposing form and order on "matter" = on the second principle of being). The necessity for the existence of these intermediate entities is clear: ἐτι δὲ παρὰ τὰ αἰσθητὰ καὶ τὰ εἶδη τὰ μαθηματικὰ τῶν πραγμάτων εἶναι φησι μεταξύ, διαφέροντα τῶν μὲν αἰσθητῶν τῷ αἰδίᾳ καὶ ἀκίνητα εἶναι, τῶν δὲ εἰδῶν τῷ τὰ μὲν πόλλ' ἅττα ὅμοια εἶναι τὸ δὲ εἶδος αὐτὸ ἐν ἑκάστων μόνον, 987b14-18.

To this structural account of the Platonic system, there exactly corresponds its genetic explanation. This is also basically binary:

1*) Heracleitianism + Socratic quest for definition, which means for the common universal (τὸ καθόλου), □ theory of forms [987a32-987b1: Heracleitean influence via Cratylus. 987b1-9: Socratic contribution].

2*) Pythagoreanism explains the identification of ideas with (ideal) numbers and the theory of first principles (987b18-25).

There is in fact such an explicit nexus of cross-inferences in Aristotle's account of the Platonic system, that his reconstruction appears thoroughly deliberate. Thus, because of (1), and, correspondingly, (1*), numbers and their principles are separate from things, unlike what is the case according to the Pythagorean theory. Τὸ μὲν οὖν τὸ ἓν καὶ τοὺς ἀριθμοὺς παρὰ τὰ πράγματα ποιῆσαι (sc. Plato), καὶ μὴ ὥσπερ οἱ Πυθαγόρειοι, καὶ ἡ τῶν εἰδῶν εἰσαγωγή διὰ τὴν ἐν τοῖς λόγοις ἐγένετο σκέψιν (οἱ γὰρ πρότεροι διαλεκτικῆς οὐ μετεῖχον), 987b29-33. And, conversely, we may add, because of (2), and (2*), the essence of things and their sensible constitution, have ultimately to be interpreted mathematically, as in Timaeus. Finally, (1*) and (2*) lead to:

3*) The conjunction, and synthesis, of Heracleiticism + Socratism on the one hand and Pythagoreanism on the other leads to the Platonic peculiarity of mathematical intermediacy, a doctrine which introduces into the system heavy additional complications according to Aristotle, and which, significantly was abandoned by Speusippus (οἱ λέγοντες ἀριθμὸν πρῶτον τὸν μαθηματικόν, 1075b37). The Old Academy reverted then to purer Pythagoreanism after Plato.

Now the crucial (for our purpose here) question in Aristotle's account of the Platonic system is whether he understood (1*) and (2*) as two distinct temporal phases in the formation of the system, or rather as two steps in the logical construction of the system, two "steps" reflecting the two moments (1) and (2). And the answer to this question depends heavily on Aristotle's meaning in the passage where he critically re-examines the Theory of Forms in M, 4-5. He starts this inquiry in the following way: περὶ δὲ τῶν ἰδεῶν πρῶτον αὐτὴν τὴν κατὰ τὴν ἰδέαν δόξαν ἐπισκεπτέον, μηθὲν συνάπτοντας πρὸς τὴν τῶν ἀριθμῶν φύσιν, ἀλλ' ὥς ὑπέλαβον ἐξ ἀρχῆς οἱ πρῶτοι τὰς ἰδέας φήσαντες εἶναι (1078b9-12). Who are these πρῶτοι τὰς ἰδέας φήσαντες εἶναι μηθὲν συνάπτοντας πρὸς τὴν τῶν ἀριθμῶν φύσιν? I think Plato (and not, e.g., some other Socratic φίλοι τῶν εἰδῶν).

In support of this thesis I shall simply mention here that the argumentation in M parallels closely the corresponding one in A, where Plato is obviously the object of inquiry. In particular, the role of the Socratic quest for definition of the essential καθόλου is highlighted, again in the context of dominant Heracleitianism. Socrates is here, moreover, explicitly denied the patronage of the Theory of Forms: ἀλλ' οἱ μὲν Σωκράτης τὰ καθόλου οὐ χωριστὰ ἐποίει οὐδὲ τοὺς ὀρισμούς· οἱ δ' ἐχώρισαν, καὶ τὰ τοιαῦτα τῶν ὄντων ἰδέας προσηγόρευσαν (1078b30-32). In fact, Socrates is equally explicitly credited with two things (δύο γάρ ἐστιν ἃ τις ἀν' ἀποδῶη Σωκράτει δικαίως, 1078b27-8), τοὺς τ' ἐπακτικούς λόγους καὶ τὸ ὀρίζεσθαι καθόλου (1078b28-29), both pertaining to scientific knowledge (ταῦτα γάρ ἐστιν ἄμφω περὶ ἀρχὴν ἐπιστήμης, 1078b29). And Socrates' interest was restricted even in this respect to the moral excellences (virtues), περὶ τὰς ἠθικὰς ἀρετὰς πραγματευομένου (1078b17-18); cf. 987b1-2: Σωκράτους δὲ περὶ μὲν τὰ ἠθικὰ πραγματευομένου περὶ δὲ τῆς ὅλης φύσεως οὐθέν etc.

That Plato is primarily meant in this criticism of the Theory of Ideas in M, 4-5, is further evidenced by the fact that near the end of the entire argumentation the Phaedo is mentioned by name (1080a2). And this again replicates what is said about the same Phaedonian point in A, 991b3 sqq.

Finally, on a different count, that Plato actually underwent a fundamental evolution in thinking according to Aristotle, seems also to be suggested by the way in which he temporalises his account of the constitutive influences on Plato's formation, in the very introduction of his examination of Platonic philosophy. Thus Plato ἐκ νέου τε γὰρ συνήθης γενόμενος πρῶτον Κρατύλῳ καὶ ταῖς Ἡρακλειτείαις δόξαις (987b32-33), inferred that there can be no science of the sensible reality as this is found in continuous flux. Ταῦτα μὲν καὶ ὕστερον οὕτως ὑπέλαβεν (987a34-b1): i.e. he retained this Heracleitean influence in the latter and maturer phases of his thinking. Then comes the Socratic factor, and finally Pythagoreanism is introduced. The sequence is of course repeated in the latter treatment (M, 4-5).

In conclusion, therefore, Aristotle provides us with an analytical and genetic description of the fundamental structure of the Platonic system, which admits of a two-stage pattern in Platonic development: the stage before and the stage after some decisive exercise of Pythagorean influence. The stage before is dominated by Heracleiteanism (sensible reality is in permanent flux) and Socratism (definition and science is of the universal). These parameters continued to operate into the second phase of Pythagorean Platonism, but now under the overarching influence of Pythagoreanism, which in effect gave the key to the knowledge logically demanded, but not discoverable, within the framework of the first phase. But more on this, in the third section below.

Let me mention here (what will be elaborated in an Appendix) that Aristotle's account of Platonic development, also squares nicely with the historical evidence, as this can be elicited from the

critical shifting of our sources.

II

Pythagoreanism in the Meno will be analysed here under the following seven headings:

- 1) Socrates' example of a proper definition: shape, colour and their intimate connection (74b4-76e9).
- 2) The doctrine of reincarnation (specifically in its Pindaric form). Who are the *ἄνδρες καὶ γυναῖκες σοφοὶ περὶ τὰ θεῖα πράγματα*? (81a5-c4).
- 3) *Ἀνάμνησις* (81c5 sqq.).
- 4) The kinship of nature and the cohesion of knowledge (81c9-d4).
- 5) The mathematical demonstration with the slave and inferences from it concerning *Ἀνάμνησις* (82b9-86c2). The meaning of *ἄσιν ἡ ἀλήθεια τῶν ὄντων ἐστὶν ἐν τῇ ψυχῇ* (86b1-2).
- 6) *Argumentum ex hypothesi* (86d3-87c2).
- 7) *Λογισμὸς αἰτίας* (98a3-4).

1) Wanting to give an example of what he means by a proper definition of the essence of a thing, Socrates proposes shape as object of investigation (*τί ἐστιν σχῆμα*; 74b5). A mathematical entity is thus focused upon. And in immediate succession to the question, colour (*χρῶμα*) is introduced (74c5). Then without much ado (apart from generalities that do not relate directly to the particular case under discussion), the following statement is given as an answer to the *τί ἐστιν* question: *ἔστω γὰρ δὴ ἡμῖν τοῦτο σχῆμα, ὃ μόνον τῶν ὄντων τυγχάνει χρώματι ἄσιν ἐπόμενον* (75b9-11). Now that the existence of colour entails the existence of a (coloured) surface is an important point that could be developed philosophically in important ways. One should expect here pregnant explanatory analyses on the relationship of surface, boundary of a solid thing and colouration. Nothing, however, of the sort is being attempted here. The development is blocked by Meno's objection that this is to define unknowns by things more unknown (75c2-7). On the other hand, it was a characteristic Pythagorean tenet to essentially associate surface with colour; in fact, Aristotle seems to indicate that the Pythagoreans identified surface and colour: *τὸ γὰρ χρῶμα ἢ ἐν τῷ πέρατί ἐστιν ἢ πέρας* (*διὸ καὶ οἱ Πυθαγόρειοι τὴν ἐπιφάνειαν χροῖαν ἐκάλουν*), *Parva Naturalia*, 439a30-31 = 58DK B42. (Doxographic attestation in *Plut. Epit.* I, 15, 2 = *Stobaeus Ecl.* I, 16, 2 = *Diels DG* p. 313.6-7: *οἱ Πυθαγόρειοι χροῖαν ἐκάλουν τὴν ἐπιφάνειαν τοῦ σώματος*, where it is made explicit that a surface is the boundary of a body. And so *Psellus, de omnit. Doctr.* 64: *χρῶμά ἐστιν ὁρατὴ ποιότης τῆς τῶν σωμάτων ἐπιφανείας*, where the force of the Pythagorean conception is rather scholastically lost or diluted). In the *Theolog. Arithm.* the doctrine (p. 22.5 de Falco) appears in conjunction with the Pythagorean emphasis on the surface as fundamental element in the geometry of space (and, thus, in the constitution of solids - mathematical or physical is the same thing for the Pythagoreans). As Aristotle mentioned with reference to some thinkers (including the Pythagoreans), boundaries and limits of bodies are substances, and more so than bodies and solids (*Met.* 1028b16 = 58 DK B23). – *Χρόα*, *χροιά* (and *χρῶς*) meant also the skin esp. of the human body and its complexion, as well as colour. The essential association of bounding surface and colour was felt even in the prephilosophical understanding of the world reflected in language and common thinking.

Furthermore. We know something about how, according to the Pythagoreans, colour entered into the very first cosmogonical step. Aristotle comments on what he deems a difficulty on their part to account for the generation of the first one from the ultimate dual principles of reality, *πέρας καὶ ἄπειρον*. This first one is an extended unit by means of which space (in itself an infinity) is organized into finite order. But *ὅπως δὲ τὸ πρῶτον ἐν συνέστη ἔχον μέγεθος*,

ἀπορεῖν' εὐόικασιν (Met. 1080b20-21 = 58 DK B9). An intimation of the different approaches which the Pythagoreans utilised to overcome this difficulty in effecting the first step towards the world creation, is given by Aristotle: φανερώς γὰρ λέγουσιν ὡς τοῦ ἐνὸς συσταθέντος, εἴτ' ἐξ ἐπιπέδων εἴτ' ἐκ χροιάς εἴτ' ἐκ σπέρματος εἴτ' ἐξ ὧν ἀποροῦσιν εἰπεῖν, εὐθὺς τὸ ἐγγίστα τοῦ ἀπείρου ὅτι εἴλκετο καὶ ἐπεραίνετο ὑπὸ τοῦ πέρατος (Met. 1091a 15-18 = 58DK B26). Cf. Philolaus (44DK B7): τὸ πρᾶτον ἀρμοσθέν, τὸ ἐν, ἐν τῷ μέσῳ τᾶς σφαίρας ἐστία καλεῖται. And so Theolog. Arithmeticae p. 6.17 (de Falco): τὴν μοναδικὴν φύσιν Ἑστίας τρόπον ἐν μέσῳ ἰδρῦσθαι. More informatively, Philolaus 44DK B17: ὁ κόσμος εἰς ἐστίν, ἥρξατο δὲ γίνεσθαι ἀπὸ τοῦ μέσου καὶ ἀπὸ τοῦ μέσου εἰς τὸ ἄνω διὰ τῶν αὐτῶν τοῖς κάτω.

[[The passage continues: ἐστὶ <γὰρ> τὰ ἄνω τοῦ μέσου ὑπεναντίως κείμενα τοῖς κάτω. τοῖς γὰρ κατωτάτῳ τὰ μέσα ἐστὶν ὥσπερ τὰ ἀνωτάτῳ καὶ τὰ ἄλλα ὡσαύτως. πρὸς γὰρ τὸ μέσον κατὰ ταῦτά ἐστιν ἐκάτερα, ὅσα μὴ μετενήκεται. This idea is explicitly mentioned (without organic need) in Socrates' description of the underworld (inside the "real earth" which is vastly larger than what we think "our earth" and extends to the heaven, is, in fact, the entire world) in Phaedo's myth (112d6-e3). Philolaus held that the moon was γεώδης and inhabited καθάπερ τὴν παρ' ἡμῖν γῆν (44DK A20). He also called Ὀλυμπον τὸ ἀνωτάτῳ μέρος τοῦ περιέχοντος, ἐν ᾧ τὴν ἐλικρίνειαν εἶναι τῶν στοιχείων (44 DK A16) – of all elements presumably and, of earth above all, just as in the Phaedonian myth (109b4-c2; 109d6-110b2; cf. 110b5 sqq.; 114b6-c2). This extremely characteristic conception of a World-Earth is ascribed by Plato to someone specifically: εἰσὶν δὲ πολλοὶ καὶ θαυμαστοὶ τῆς γῆς τόποι, καὶ αὐτὴ οὔτε οἶα οὔτε ὅση δοξάζεται ὑπὸ τῶν περὶ γῆς ἐιωθότων λέγειν, ὡς ἐγὼ ὑπὸ τινος πέπεισμαι (Phaedo, 108c5-8). This "one" must have been then Philolaus, who is also mentioned explicitly in the dialogue (61e), in connection with the prohibition of self-slaying resulting from the doctrine of the soul's incarceration in the bodily life of this world (cf. 44DK A15 and A14).

[The idea of World-Earth, with its multitude of deeper or shallower, broader or narrower, interconnected cavities (ἐγκοῖλα, Phaedo 111c5), one of which is our οἰκουμένη, this idea goes back in all likelihood to Phyrekydes (v. 7DK B6; cf. A10). The Philolaeian lengthy and elaborate recension of the idea (ὁ βίος μοι δοκεῖ σ' ἐμός, ὦ Σιμμία, τῷ μήκει τοῦ λόγου οὐκ ἐξαρκεῖν, Phaedo 108d8-9) must have been impressive and influential. Clearchus (the Peripatetic) seems to have used it in recounting the death-experience (Er-like) of Cleonymus (Fr. 8, p. 11.35 sqq. Wehrli): τὴν μὲν οὖν αὐτοῦ ψυχὴν φάναι παρὰ τὸν θάνατον οἶόν' ἐκ δεσμῶν δόξαι τινῶν ἀφειμένην τοῦ σώματος παρεθέντος μετέωρον ἀρθῆναι, καὶ ἀρθεῖσαν ὑπὲρ γῆς ἰδεῖν τόπους ἐν αὐτῇ παντοδαπούς καὶ τοῖς σχήμασι καὶ τοῖς χρώμασι καὶ ρεύματα ποταμῶν ἀπρόσοπτα ἀνθρώποις. καὶ τέλος ἀφικέσθαι εἰς τινα χῶρον ἱερὸν τῆς Ἑστίας etc., where the souls undergo punishment and purification (as in the Acherusian lake of the Phaedonian myth)].

It is significant that the Phaedonian myth lays extraordinary stress on the colouration of the real earth and its parts, as it is seen from the purity of the celestial sphere: 110b7-e2. The emphasis on colour as a fundamental cosmogonical factor may have been characteristic of Philolaus. It was remarkably reflected in Zeno the Stoic: Ζήνων ὁ Στωϊκὸς τὰ χρώματα πρώτους εἶναι σχηματισμοὺς τῆς ὕλης Plut. Epit. I, 15, 6 = Stobaeus I, 16.6 = Diels DG p. 313.19-20).]]

Aristotle, we saw, mentions planes, colour-surfaces and semen as ways which different groups of Pythagoreans endeavoured to invoke in order to explain the beginning of the world-ordering, the genesis of the first extended monad out of the two principles of reality. I have argued elsewhere [Origin and Nature of Early Pythagorean Cosmogony, in K. Boudouris (ed.), Pythagorean Philosophy, 1992, pp. 126-162, esp. pp. 135 sq. with notes] in favour of an original form of Pythagoreanism that would employ biological symbolism (semen) in its cosmogonical

processes. Planes, on the other hand and at the other end, seem to refer to a construction of (regular geometrical) solids out of plane figures, like the elementary triangles in Plato's *Timaeus*. Colour-surfaces (in between the two extremes conceptually and chronologically), may well reflect the idea that it is the boundaries of bodies which constitute them as distinct entities, with unorganized space or the vacuum separating them one from another: εἶναι δ' ἔφασαν καὶ οἱ Πυθαγόρειοι κενόν, καὶ ἐπεισιέναι αὐτῷ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεῦμα τε ὡς ἀναπνέοντι καὶ τὸ κενόν, ὃ διορίζει τὰς φύσεις, ὡς ὄντος τοῦ κενοῦ χωρισμοῦ τινος τῶν ἐφεξῆς καὶ [τῆς] διορίσεως· καὶ τοῦτ' εἶναι πρῶτον ἐν τοῖς ἀριθμοῖς· τὸ γὰρ κενὸν διορίζειν τὴν φύσιν αὐτῶν (numbers being extended entities for the Pythagoreans), *Phys.* 213b22 = 58 DK B30.

According to such a construal, it is boundaries of things that we perceive as shapes and as colours. These colour-surfaces even have a certain metaphysical priority over their bodies: they define them as existing, distinct and separate entities. This account would fit well to the Orphic doctrine of Protogonos-Eros' birth (with its portentous light-imagery that accompanies him right from the beginning, as in Aristophanes' *Aves*). Light (of Phanes, according to Orphism) brings to existential "appearance" the multifarious hues which constitute the variegated spectacle of reality. This could also explain the apparent definitional precedence of colour over surface in both the Pythagorean and the Menonian accounts: οἱ Πυθαγόρειοι τὴν ἐπιφάνειαν χροάν ἐκάλουν. And: σχῆμά ἐστιν ὃ μόνον τῶν ὄντων τυγχάνει χρώματι ἀεὶ ἐπόμενον. (This would come from a phase of Pythagoreanism preceding the fully mathematicised one, with its stress on surfaces, *Timaeus*-like, in the constitution of sensible reality).

[Such an Orphic connection would square with the cosmogonical content of (the reputed Philolaus') *Βάκχαι* (44DK B17-19). We should always bear seriously in mind the Herodotean pronouncement (even if it is given with reference to a particular observance): ὁμολογέουσι δὲ ταῦτα τοῖσιν Ὀρφικοῖσιν καλεομένοισιν καὶ Βακχικοῖσιν, ἑοῦσι δὲ Αἰγυπτίοισιν καὶ Πυθαγορείοισιν (II 81). Maybe the Phaedian myth comes from the Philolaean system of cosmology and eschatology].

After the repudiation by Meno of the proposed definition, Socrates agrees that in a dialectical encounter perhaps one should state only what the person questioned admits of knowing. There follows then the geometrical definition of shape: στερεοῦ πέρας σχῆμα εἶναι (76a7). Meno presses on for a definition of colour. Socrates obliges with the Gorgian (basically Empedoclean*) account: ἔστιν γὰρ χροὰ ἀπορροή σχημάτων ὅψει σύμμετρος καὶ αἰσθητός (76d4-5). If σχημάτων is right, we probably have a Platonic elaboration of Empedocles – Gorgias' view. Χρημάτων is attested as a variant in T, while σωμάτων is read in Alexander de sensu p. 24.8 (Wendland). If the definition is Gorgias', χρημάτων should be probably restituted, as Diels-Kranz saw. Πόροι played an important generally role, it seems, in Gorgian Physics, cf. 82 DK B5.

Socrates makes clear that he is not satisfied with this definition of colour (76e6-9). He ascribes Menon's enthusiastic endorsement of it to the fact that he is accustomed to it (76d8) or that it is framed grandiloquently (e3-4) in Gorgian rhetorical manner. Socrates means probably to object that it does not give the essence of colour, but only, at most, supplies an account of the mechanism through which colour is seen. (This is exactly what he clarifies in the methodological passage of *Phaedo*). Besides, the Pythagorean factor operating here would demand definitions of shape and colour exhibiting the necessary coimplication, if not virtual identity, of their respective objective essences.

2) The doctrine of transmigration and reincarnation of the souls was peculiarly Pythagorean. Furthermore, here we have to do with a specific form of it encapsulated in the Pindaric passage (Fr. 133 Maehler). According to this, the incarnated souls are giving penance for wrongs done of old, for ancient mourning and “pristine woe” (ποινὰν παλαιοῦ πένθεος). The primeval grief is Persephone’s (as Rhode saw) primarily – her is the πένθος, and therefore she is entitled to receive, accept or refuse, atonement. In the Pindaric text we meet therefore by implication with the abominable deeds of the Titans committed upon Zagreus, the Mystic Dionysus, son of Persephone. The full Orphic account of the story of this Original Sin had the Titans struck by Zeus’ lightning. From their ashes came the human race, Τιτανικὸν σπέρμα. In the Pindaric fragment we see also part of the Orphic-Pythagorean eschatology. It concerns those that are relieved from the bondage of necessity: κύκλου δ’ ἐξέπταν βαρυπενθέος ἀργαλέοιο, as the gold leafs of the dead had it. They are the εὐσεβεῖς and ὀλβιοὶ of Fr. 129. (The Orphic tenor of the doctrine is confirmed by Fr. 131a: ὀλβιοὶ δ’ ἅπαντες αἴσα λυσιπόνων τελετῶν). In Fr. 130 we encounter the damned souls, the ones condemned to the Tartarean Erebus. There remains the third part of souls, of the middling life on earth, who, chastised for their defects for a set period of time, are thrown back to the cycle of innerworldly necessity to prove whether the chastisement was really atonement and purgation. This triple destiny is paralleled in Olymp. II 56-78.

Now the structure of this Pindaric (Orphico-Pythagorean) Eschatology is identical with that of the Phaenon myth. And, so far as we can judge, the cosmology that goes with such Eschatology is also very similar. (See, e.g., the ποταμοὶ in Fr. 130). We saw reason above to support a Philolaean source for Phaenon’s myth. But the Pindaric eschatology, (which is by no fortuitous accident that Plato invokes in the Meno) leads us way back, to 6th century Orphico-Pythagorean doctrine.

It cannot be without significance that relatively minor, but characteristic, details appear in common among these various cosmologico-eschatological accounts, strengthening thereby the case for a single, definite source, esp. as they form an interlapping net like “family resemblances”. In the second Ολυμπιονίκης (addressed appositely to a Sicilian victor), Pindar holds that to those souls is salvation delivered who would live a life of purity three consecutive times on earth and three in the realm of dead: Ol. II 68: ὅσοι δ’ ἐτόλμασαν ἑς τρεῖς ἐκατέρωθι μείναντες ἀπὸ πάντων ἀδίκων ἔχειν ψυχάν etc. Now thrice must they choose to live the pure life those that will be transferred to the Islands of the Blessed, beyond the hold of the Cycle of Necessity, in the cognate to the Phaenon Phaenon myth, 249a: ἐὰν ἔλονται τρεῖς ἐφεξῆς τὸν βίον τοῦτον etc.

The Orphic version emphasised the specific primeval atrocity perpetrated. We can well imagine that the philosophical Pythagoreans would generalize the delict involved to any violation of cosmic order committed when the soul lives its independent, purely spiritual, life. In Empedocles we have probably both an allusion to the Titanic abominations (31 DK B124:

ὦ πόποι, ὦ δειλὸν θνητῶν γένος, ὦ δυσάνολβον
τοίων ἕκ τ’ ἐρίδων ἕκ τε στοναχῶν ἐγένεσθαι)

and to the general principle (B115). Once fallen, the souls enter the cycle of transmigration (cf. B127), where they should lead a life of purification (νηστεῦσαι κακότητος, B 144) and wisdom (B 132) in order, at the end of an ascending ladder of transformation, that they might finally become what they were before the fall (B146). The same pattern, more philosophically expressed, we see in Phaenon 248a-249d, esp. 248c-d. Very appropriately DK append to Empedocles the Phaenon passage as C. Anklang. [Notice that if the τρεῖς μύραι ὥραι of

Empedocles B 115.6 refer to seasons, and if we accept the early reckoning of three seasons in the year, the grand period of transmigration is the same in Empedocles and Plato (Phaedrus: 248e9, ἐτῶν μυρίων)].

But whatever the possibilities open, and whatever the significance of an outlook which would emphasise that imprisonment protects (as well as punishes) the culprit from his worst predictable excesses (on which more in a moment), the corporeal “dressing” of the soul, to which she is bound, is a serious “testaceous” impediment to its divine function: initially souls were by themselves following the litany of Zeus and the other gods, καθαροὶ ὄντες καὶ ἄσημαντοι τούτου ὃ νῦν σῶμα περιφέροντες ὀνομάζομεν, ὁστρέου τρόπον δεδεσμευμένοι (Phaedrus, 250c).

Incarnated souls are here for a punishment. This World is part of the purification procedure, as much as Hades. In fact, according to the Phaedonian myth, our inhabited earth is just one of the cavities of the world-earth, others (more awesome) being the Acherusian lake and Tartarus itself, all bound in a network of communications. The ideas could within such an outlook naturally arise of the soul, first, really dying when being incarnated (being removed from the fullness of its true and divine life); and, second, of the soul being incarcerated in the body of its worldly existence. The former idea we discover, I think, in Empedocles (B 125):

ἔκ μὲν γὰρ ζῶων ἐτίθει νεκρὰ εἶδε' ἀμείβων
(which fragment follows immediately upon B118:
κλαῦσά τε καὶ κώκυσα ἰδὼν ἄσυνθηέα χῶρον).

Both ideas are connected especially with Philolaus, who also draw the corollary that, as a consequence of that state of affairs, self-dying is a wrong which aggravates the condition of the soul. And this corollary is explicitly ascribed to Philolaus in Phaedo, 61d7; e7. The secret reason given is that we are here somehow incarcerated: ὅ' ἐν ἀπορρήτοις λεγόμενος περὶ αὐτῶν λόγος, ὡς ἐν τινι φρουρᾷ ἐσμὲν οἱ ἄνθρωποι (62b2-6). V. 44 DK B15. These views were ascribed by Clearchus to some Pythagorean Euxitheus (Fr. 38 Wehrli): ἔλεγεν ἐνδεδέσθαι τῷ σώματι καὶ τῷ τῆδε βίῳ τὰς ἀπάντων ψυχὰς τιμωρίας χάριν, καὶ διείπασθαι τὸν θεὸν ὡς εἰ μὴ μενοῦσιν ἐπὶ τούτοις, ἕως ἂν ἐκὼν αὐτοὺς λύσῃ, πλείοσι καὶ μείζονι ἐμπεσοῦνται τότε λύμαις etc. Cicero goes back to Pythagoras himself (de senect. 20): vetat Pythagoras injussu imperatoris, id est Dei, de praesidio et vitae statione descendere. (But on φρουρά as praesidium see in a moment). Philolaus meant probably to ascribe the doctrine to Orpheus when he wrote (B14): μαρτυρέονται δὲ καὶ οἱ παλαιοὶ θεολόγοι τε καὶ μάντιες, ὡς διὰ τινος τιμωρίας αἱ ψυχὰ τῷ σώματι συνέζευκται καὶ καθάπερ ἐν σάματι τούτῳ τέθραπται.

Plato in Gorgias assigns the σῶμα - σῆμα theory to some unspecified wise men: ἤκουσα τῶν σοφῶν ὡς νῦν ἡμεῖς τέθναμεν καὶ τὸ μὲν σῶμά ἐστιν ἡμῖν σῆμα (493a2-3). What follows has significant implications regarding the true upholder of these views: τῆς δὲ ψυχῆς τοῦτο ἐν ᾧ ἐπιθυμίαι εἰσὶ τυγχάνει ὃν οἶόν ἀναπείθεσθαι καὶ μεταπίπτειν ἄνω κάτω, καὶ τοῦτο ἄρα τις μυθολογῶν κομπὸς ἀνὴρ, ἴσως Σικελός τις ἢ Ἰταλικός, παράγων τῷ ὀνόματι διὰ τὸ πιθανόν τε καὶ πειστικὸν ὠνόμασε Πίθον, τοὺς δὲ ἀνοήτους ἀμύητους, τῶν δ' ἀνοήτων τοῦτο τῆς ψυχῆς οὐαὶ ἐπιθυμίαι εἰσὶ, τὸ ἀκόλαστον αὐτοῦ καὶ οὐ στεγανόν, ὡς τετρημένος εἴη Πίθος, διὰ τὴν ἀπληστίαν ἀπεικάσας. Τούναντίον δὲ οὗτος σοί, ὦ Καλλίκλεις, ἐνδείκνυται ὡς τῶν ἐν Ἀ.δου - : τὸ αἰδὲς δὲ λέγων - οὗτοι ἀθλιώτατοι ἂν εἶεν, οἱ ἀμύητοι, καὶ φοροῖεν εἰς τὸν τετρημένον Πίθον ὕδωρ ἐτέρω τοιούτῳ τετρημένῳ κοσκίνῳ. Τὸ δὲ κόσκινον ἄρα λέγει, ὡς ἔφη ὁ πρὸς ἐμὲ λέγων, τὴν ψυχὴν εἶναι· τὴν δὲ ψυχὴν κοσκίνῳ ἀπῆκασεν τὴν τῶν ἀνοήτων ὡς τετρημένην, ἅτε οὐ δυναμένην στέγειν δι' ἀπιστίαν τε καὶ λήθην (493a3-c3).

If we subtract from this passage the implication of some elaborate theory of the division of

soul in distinct parts or faculties (ἐπιθυμητικοί etc.), what remains ought to be ascribed to some one “Western”, a definite one, who is explained metaphorically (allegorizing) by Plato’s immediate informant. (He, the author of these views, says, ὡς ἔφη ὁ πρὸς ἐμὲ λέγων. Cf. also the οὗτος in b3 etc.). Furthermore, in the formula κομψὸς ἀνὴρ, ἴσως Σικελὸς τις ἢ Ἰταλικός, the Σικελὸς κομψὸς ἀνὴρ is proverbial, as forming a verse in a poem of Timochares the Rhodian (Fr. 4 Diehl). Hence, Plato means in all probability someone from Magna Graecia (Ἰταλικός). Now it was part of the Orphic symbolic imagery to picture the damned souls as exerting themselves in something miserably self-defeating. Carrying water in a sieve is exemplary in this respect. So Musaeus and Orpheus (according to Plato, Rep. 363c-e) τοὺς ἀνοσίους εὖ καὶ ἀδίκους εἰς πηλὸν τινα κατορύπτουσιν ἐν Αἴδου καὶ κοσκίνῳ ὕδωρ ἀναγκάζουσι φέρειν ἔτι τε ζῶντας εἰς κακὰς δόξας ἀγοντες.

Differing pictures could have been used to convey the same meaning: Polygnotus painted in the Delphic Λέσχη two women φέρουσαι ὕδωρ ἐν κατεαγόσιν ὀστράκοις, over which he wrote an inscription to the effect εἶναι σφᾶς τῶν οὐ μεμνημένων (Paus. X, 31). To aggravate the force of the initial similitude by making the unjust and unholy ones carry water in a sieve to a perforated jar (τετρημένος πίθος) is natural to the multidynamism of symbolic thinking. This picture may well have occurred in Philolaus’ description of the Earth-World and its eschatological dimensions, not improbably in his Βακχικά (where they his in fact). And Philolaus is presumably meant in the Gorgias just before this passage on πίθος and κόσκινον and ἀμύητοι = ἀνόητοι – where Plato mentions the σῶμα - σῆμα theory.

To the negative emphasis on incarnation as incarceration according to the σῶμα - σῆμα theory, there corresponded complementarily the more positive outlook involved in the σῶμα - σώζω account. The body, like prison, protects the culprit from exhausting his depravity and thus aggravating his condition beyond remedy, if he is left unprotected and unbound to himself. The daemonic nature running, so to speak, amok, needs the restrictive bounds of corporeal existence to limit its (self-)wrongdoing. This more constructive attitude to incarnation does not alter the basic metaphysical and eschatological structures of the general theory, as is evident from Plato’s testimony: δοκοῦσι μέντοι μοι μάλιστα θέσθαι οἱ ἄμφ’ Ὀρφέα τοῦτο τὸ ὄνομα (sc. σῶμα) ὡς δίκην διδούσης τῆς ψυχῆς, ὧν δὲ ἔνεκα δίδωσιν, τοῦτον δὲ περίβολον ἔχειν, ἵνα σώζηται, δεσμοτηρίου εἰκόνα. εἶναι οὖν τῆς ψυχῆς τοῦτο, ὡς περ αὐτὸ ὀνομάζεται, ἕως ἂν ἐκτείσῃ τὰ ὀφειλόμενα, σῶμα, καὶ οὐδὲν δεῖν παράγειν οὐδὲ ἐν γράμμα (Cratylus, 400b-c). The reference is to Zagreus’ passion, the Titanic descent of man, atonement for old abominations and all. That Plato here ascribes this aspect of the common basic theory to Orphism, while differentiating it from the more regular one (καὶ γὰρ σῆμα τινὲς φασιν αὐτὸ εἶναι (sc. τὸ σῶμα) τῆς ψυχῆς, ὡς τεθαμμένης ἐν τῷ νῦν παρόντι), may indicate a fundamental bifurcation of life-attitudes: a sterner, cathartic, ascetic Pythagorean one contrasted to a more life-accepting, mysteric-therapeutic (perhaps popular) Orphic one, the latter in the spirit of what Plato condemns in Rep. 364e (= 1DK B5). Such a spirit had also respectable philosophical exponents: see eps. Olympiodorus in Phaed. B, β; B, ι; B, ιβ; and A, 3 (pp. 2.30-3.5 Norvin). But Plato, his source (Philolaus) and mainstream, orthodox doctrine, conceived of φρουρά as a place of chastisement even if for the prisoner’s benefit as well. Gorgias, 525a6-b4: ἰδὼν (sc. Rhadamanthes) δὲ ἀτίμως ταύτην (sc. the vicious soul) ἀπέπεμψεν εὐθὺς τῆς φρουρᾶς, οἱ μὲλλει ἐλθοῦσα ἀνατλήναι τὰ προσήκοντα πάθη. προσήκει δὲ παντὶ τῷ ἐν τιμωρίᾳ ὄντι, ὑπ’ ἄλλου ὀρθῶς τιμωρουμένῳ, ἢ βελτίονι γίνεσθαι καὶ ὀνίνασθαι ἢ παραδείγματι τοῖς ἄλλοις γίνεσθαι, ἵνα ἄλλοι ὀρώντες πάσχοντα ἃ ἂν πάσχη φοβούμενοι βελτίους γίνωνται.

To conclude then this part of the inquiry. Who are the ἄνδρες καὶ γυναῖκες σοφοὶ περὶ τὰ θεία πράγματα in Meno, 81a? Socrates explains that they are τῶν ἱερέων τε καὶ τῶν ἱερειῶν ὅσοις μεμέληκε περὶ ὧν μεταχειρίζονται λόγον οἷσις τ' εἶναι διδόναι (ibid.). Σοφοὶ thus concerning divine things are those who are able to explain them, to reason about them. They make an advance upon the μεμιγμένοι theologians of Aristotle (Met. 1091b8-9), who merely do not employ the pure mythological way alone (such as Pherecydes). Given an Orphic-Pythagorean framework, these sacred persons who are able to reason concerning the mythoritualistic apparatus of religion (and we may well assume, particularly the mythological symbolism of its mysteric aspect), must be Pythagoreans. The emphasis (twice) on men and women points in the same direction. ἱερεῖς and ἱερεῖαι need not be taken strictly in the connotations of modern priests and priestesses. The rites of ancient religion were open to private citizens, public administrators, functionaries of religious or other associations, prophets and soothsayers, holy men, itinerant, even vagabond, initiators and so on.

On the other hand, the double occurrence of the male/female antithesis (one of the cardinal Pythagorean opposites), may allude to the ultimately prophetic descent of Pythagorean wisdom. Aristoxenus maintained that Pythagoras took his doctrines (or, at least, the “moral” ones) from Themistoclea of Delphi: D.L. VIII, 21: οἱ δ' αὐτός φησιν (sc. Aristoxenus), ...καὶ τὰ δόγματα λαβεῖν αὐτὸν παρὰ τοῖς ἐν Δελφοῖς Θεμιστοκλείας. And §8: φησὶ δὲ καὶ Ἀριστόξενος τὰ πλεῖστα τῶν ἠθικῶν δογμάτων λαβεῖν τὸν Πυθαγόραν παρὰ Θεμιστοκλείας τῆς ἐν Δελφοῖς. Themistocleia is another, and “previous”, Diotima.

3) In Orphism, the religious significance of remembrance (Μνημοσύνη) is heavy, esp. in an eschatological context. In general, as in every doctrinal religion, salvation depends on truth and knowledge of truth. Such knowledge has to be actual, in order to be active, not merely potential. And this condition is expressed by memory: one knows the truth, when one recognises it in being, and, thus, when one remembers it. Recognition is of the essence of knowledge, and this is why remembrance is the criterion of its possession. (This is, in fact, the source of the Phaedian development of the doctrine of ἀνάμνησις).

This experience of remembrance as constitutive of the knowledge of truth is found symbolised in Orphism within the context of the powerful imagery regarding what happens to the soul upon the death of man. We possess a few variants of this representation in the gold leaves discovered appended to the corpses in burials from various places in Italy and Greece. These gold leaves provide the ritualistic confession of a soul on the process of divinization. When she leaves the light of sun (Ἀλλ' οἴοταμ ψυχὴ προλίπη φάος Ἀελίοιο, A4 1 (Zuntz)) and comes before the palaces of Hades, she will find (B1 and B2 Zuntz and cf. B3-8) two sources of water, one to the left by a white cypress, the other further on to the right, coming from the Lake of Remembrance. (There is a complication in that B2 from Pharsalus seems to locate the first spring to the right as well - ἐνδέξια -, but I think the basic pattern should be the one I indicated above). The initiated soul should refrain from drinking water from the former source. But the soul is dry from death and suffers having been cut off from the juices of life. Before the right source there stand Guardians who ask her to identify herself. They want one answer: “Γῆς παῖς ἐμί καὶ Οὐρανοῦ ἄστερόεντος· αὐτὰρ ἔμοι γένος οὐράνιον· τόδε δ' ἴστε καὶ αὐτοί”. The Zagreus story is implicitly contained here, as is evidenced by the entire extant corpus of similar leaves. Drinking from the water of Mnemosyne the soul clears her intellectual vision, sees truth in its wholeness and is saved: she escapes from the cycle of necessity and enters divine Elysium. She is free from the bondage of rebirth and redeath.

The Pythagoreans elaborated this basic religious, eschatological experience into their systematic and “logical” treatment of reality.

First, it is memory of previous reincarnations that comes into the picture, closer to the religious domain. To remember one’s previous lives on earth, is a titanic feat of remembrance.

Pythagoras was conscious of them. There are two known chief accounts of Pythagoras’ preincarnations. One was given by a group of Pythagoreans and writers on Pythagoreanism: Androcydes, Eubulides, Aristoxenus, Hippobotus and Neanthes. *Theol. Arithmeticae*, pp. 52.8-53.10 = 14DK A8. They held that the reincarnations of Pythagoras’ soul were observing a period of 216 years = 6^3 , a number expressing psychogonic revitalization. They further reckoned that this fits well with the widespread notion that Pythagoras had lived before as Euphorbus during the Trojan war. The other account, reported by Heracleides Ponticus (Fr. 89 Wehrli – followed probably by Dicaearchus (Fr. 36 Wehrli) and Clearchus (Fr. 10 Wehrli)), gives a more continuous series of multiple incarnations, starting with Aethalides, the son of Mercury. The god of λόγος granted him memory of all things acquainted with: τὸν δ’ Ἑρμῆν εἰπεῖν αὐτῷ ἔλθῃσθαι ὅτι ἂν βούληται πλὴν ἄθανασίας. αἰτήσασθαι οὖν ζῶντα καὶ τελευτῶντα μνήμην ἔχειν τῶν συμβαινόντων. ἐν μὲν οὖν τῇ ζωῇ πάντων διαμνημονεῦσαι, ἐπεὶ δὲ ἀποθάνοι, τηρῆσαι τὴν αὐτὴν μνήμην. The soul of Aethalides thus knew ὡς περιεπολήθη καὶ εἰς ὅσα φυτὰ καὶ ζῶα (notice the plant-incarnations as in Empedocles) παρεγένετο καὶ ὅσα ἡ ψυχὴ ἐν τῷ Ἀ.δῇ ἔπαθε καὶ αἰ.λοιπαὶ τίνα��πομένουσιν. After a stated sequence of transmigrations, the soul γενέσθαι Πυθαγόραν καὶ πάντων τῶν εἰρημένων μεμνησθαι. Here we have the initial formulation of the cruder idea, memory of all particular things and events with which the soul had been acquainted on Earth and in Hades: ἅτε οὖν ἡ ψυχὴ ἀθάνατός τε οὔσα καὶ πολλάκις γεγонуῖα, καὶ ἑωρακυῖα καὶ τὰ ἐνθάδε καὶ τὰ ἐν Ἀ.δου καὶ πάντα χρήματα, οὐκ ἔστιν ὅτι οὐ μεμάθηκεν, *Meno*, 81c5-7. (The particularity of the memory and reminiscence in this first Platonic formulation of the doctrine is, therefore, explicable).

Second, such particularism in knowledge was early sublated, within the framework of the Pythagorean systematic and “principled” thinking, to more general formulations. “The whole truth about souls” was a first step towards such generalizations. So, again Heracleides Ponticus reports the story of Empedotimus, of whom it is said that θηρῶντα μετ’ ἄλλων ἐν μεσημβρίᾳ σταθερᾷ κατὰ τινα χῶρον αὐτὸν ἔρημον ἀπολειφθέντα λέγων τῆς τε τοῦ Πλούτωνος ἐπιφανείας τυχόντα καὶ τῆς Περσεφόνης καταλαμφθῆναι μὲν ὑπὸ τοῦ φωτὸς τοῦ περιθέοντος κύκλῳ τοὺς θεούς, ἰδεῖν δὲ δι’ αὐτοῦ πᾶσαν τὴν περὶ ψυχῶν ἀλήθειαν ἐν αὐτόπτοις θεάμασιν (Fr. 93 Wehrli). Empedotimus gave a cosmology as well to suit his revealed psychology; cf. Fr. 95-96 Wehrli. (No wonder the soul-light theory was Heracleides’). Such direct vision (αὐτοπτικὰ θεάματα) of the truth about soul corresponds to the Phaedrus myth, introduced by a similar description: δεῖ οὖν πρῶτον ψυχῆς φύσεως περὶ θείας τε καὶ ἀνθρωπίνης ἰδόντα πάθη τε καὶ ἔργα ἰαληθὲς νοῆσαι (245c2-4). The λόγος – μῦθος in the Phaedrus appears to be Pythagorean in ultimate origin: the Ἑστία stands alone immoveable in the House of Gods, while the other deities circle around the world in their celestial orbits: ὁ μὲν δὴ μέγας ἡγεμὼν ἐν οὐρανῷ Ζεὺς, ἐλαύνων πτηνὸν ἄρμα, πρῶτος πορεύεται, διακοσμῶν πάντα καὶ ἐπιμελούμενος. τῷ δ’ ἔπεται στρατιὰ θεῶν τε καὶ δαιμόνων, κατὰ ἑνδεκα μέρη κεκοσμημένη. μένει γὰρ Ἑστία ἐν θεῶν οἴκῳ μόνη etc. (246e4 – 247a2). The unmoved Ἑστία at the center of the Universe, where the divine guardianship of the world is located, is Pythagorean conception.

The vision on the nature and fate of the soul is expounded in Phaedrus, 246a3 – 257a2. The human soul had seen, she too, originally, when pure, being in its essential purity in the

ὑπερουράνιος τόπος (247c3; d5-e4; 248a1 sqq.). failure to see true being, and feed on it as on her proper sustenance, leads to forgetfulness and (consequently) evil (248c5 – 8). In her earthly condition, to be able to discern the constant focuses (i.e. the ideas) behind the continuous flux of sensible existence, is to recollect the pure intellectual vision of the supracelestial place, of which she profited originally in her blessed state of existence: δεῖ γὰρ ἄνθρωπον συνιέναι κατ' εἶδος λεγόμενον, ἐκ πολλῶν ἰὸν αἰσθήσεων εἰς ἓν λογισμῷ συναιρούμενον. τοῦτο δ' ἐστὶν ἀνάμνησις ἐκείνων ἃ ποτ' εἶδεν ἡμῶν ἡ ψυχὴ συμπορευθεῖσα θεῷ καὶ ὑπεριδοῦσα ἃ νῦν εἶναι φαμεν, καὶ ἀνακύψασα εἰς τὸ ὄν ὄντως (249b6 – c4). And again: καθάπερ γὰρ εἴρηται, πᾶσα μὲν ἀνθρώπου ψυχὴ φύσει τεθέαται τὰ ὄντα, ἢ οὐκ ἂν ἦλθεν εἰς τὸδε τὸ ζῶον. ἀναμνησκέσθαι δὲ ἐκ τῶνδε ἐκεῖνα οὐ ράδιον ἀπάσῃ, οὔτε ὅσαι βραχέως εἶδον τότε ἵκεῖ, οὐθ' αἶδεῦρο πεσοῦσαι ἐδυστήχησαν, ὥστε ὑπὸ τινων ὁμιλιῶν ἐπὶ τὸ ἀδίκον τρεπόμεναι λήθην ὧν τότε εἶδον ἱερῶν ἔχειν. ὀλίγαι δὲ λείπονται αἷς τὸ τῆς μνήμης ἱκανῶς πάρεστιν. αὗται δέ, ὅταν τι τῶν ἐκεῖ ὁμοιωμὰ ἴδωσιν, ἐκπλήττονται etc. (249e4 – 250a6). Cf. 250c7 – 8. Despite, or rather in tune with, its expression – mythical, religious and mystic (cf. 249c6 – d3; 250b8 – c6), poetic and dithyrambic (passim) – the doctrine in the Phaedrus construes ἀνάμνησις as reminiscence of pristine knowledge of the ideal world, the true reality of being. This construal is more or less taken for granted. In this respect, therefore, the Phaedrus formulations presuppose the analysis in the Phaedo, where by contrast this construal of ἀνάμνησις is elaborately argued for and analytically explained (72e3 – 77c9). [A Platonic triad is hereby indicated: Meno – Phaedo – Phaedrus].

Third. Particularism in memorizing was cultivated to a phenomenal degree, and systematized, by specific practices. Such a method consisted in trying to remember every morning, before rising from the bed of sleep, what exactly happened the day before in the sequence in which every singular event occurred. And the same endeavour was attempted for the serial happenings of the previous day, and the one before, and so on. Iamblichus Vita Pyth. §165 (= 58DK D1 p. 467.23 sqq.): Πυθαγόρειος ἀνὴρ οὐ πρότερον ἐκ τῆς κοίτης ἀνίστατο ἢ τὰ χθὲς γενόμενα πρότερον ἀναμνησθεῖν. ἐποιεῖτο δὲ τὴν ἀνάμνησιν τόνδε τὸν τρόπον. ἐπειρᾶτο ἀναλαμβάνειν τῇ διανοίᾳ, τί πρῶτον εἶπεν ἢ ἤκουσεν ἢ προσέταξε τοῖς ἐνδόν ἀναστὰς καὶ τί δεύτερον καὶ τί τρίτον, καὶ περὶ τῶν ἐσομένων ὁ αὐτὸς λόγος. καὶ πάλιν αὖ ἐξῶν τίνι πρῶτῳ ἐνέτυχε καὶ τίνι δευτέρῳ, καὶ λόγοι τίνες ἐλέχθησαν πρῶτοι καὶ δεύτεροι καὶ τρίτοι, καὶ περὶ τῶν ἄλλων δὲ ὁ αὐτὸς λόγος. πάντα γὰρ ἐπειρᾶτο ἀναλαμβάνειν τῇ διανοίᾳ τὰ συμβάντα ἐν ὅλῃ τῇ ἡμέρᾳ, οὕτω τῇ τάξει προθυμούμενος ἀναμνησκέσθαι, ὥς ποτε συνέβη γενέσθαι ἕκαστον αὐτῶν. εἰ δὲ πλείω σχολὴν ἄγοι ἐν τῷ διεγείρεσθαι, καὶ τὰ <κατὰ τὴν> τρίτην ἡμέραν συμβάντα τὸν αὐτὸν τρόπον ἐπειρᾶτο ἀναλαμβάνειν. In this mnemonic technique the temporal connectedness of the events helps the faculty of memory to recall them in their particularity.

Pythagoreans laid primary stress on the power of memory. Its exercise was pursued through various techniques. They considered it the greatest asset for scientific knowledge and expertise and practical wisdom (applied knowledge). Op. cit., §166: καὶ ἐπὶ πλεόν ἐπειρῶντο τὴν μνήμην γυμνάζειν. οὐδὲν γὰρ μείζον πρὸς ἐπιστήμην καὶ ἐμπειρίαν καὶ φρόνησιν τοῦ δύνασθαι μνημονεύειν. They soon would develop a theoretical account for such an emphasis on memory and mnemonic techniques in the pursuit of higher science. The main point was the recognition on the part of the thinking subject that it is one and the same faculty in man which possesses knowledge and keeps right judgement on the one hand, and which learns and remembers on the other. By cultivating therefore the power of remembrance you ipso facto cultivate the power of knowing and judging correctly. Op. cit. 164: ὥοντο δὲ δεῖν κατέχειν καὶ διασώζειν ἐν τῇ

μνήμη πάντα τὰ διδασκόμενά τε καὶ φραζόμενα, καὶ μέχρι τούτου συσκευάζεσθαι τὰς τε μαθήσεις καὶ τὰς ἀκροάσεις, μέχρι οὗ δύναται παραδέχεσθαι τὸ μανθάνον καὶ διαμνημονεῦον, ὅτι ἐκεῖνό ἐστιν ᾧ δεῖ γινώσκειν καὶ ἐν ᾧ γνώμην φυλάσσειν. ἐτίμων γοῦν σφόδρα τὴν μνήμην καὶ πολλὴν αὐτῆς ἐποιοῦντο γυμνασίαν τε καὶ ἐπιμέλειαν, ἐν τε τῷ μανθάνειν οὐ πρότερον ἀφιέντες τὸ διδασκόμενον, ἕως περιλάβοιεν βεβαίως τὰ ἐπὶ τῆς πρώτης μαθήσεως. Knowledge was intimately associated to learning. They secured knowledge as permanent possession in human soul by (in the words of Iamblichus they would not leave the object of learning till they have achieved) the firm and certain comprehension of what exactly constituted the initial learning of it. (This was speculatively extended to the vicissitudes of soul in her eternal life).

Iamblichus testimony stems from Aristoxenus' Pythagorean works (Πυθαγορικαὶ ἀποφάσεις and Περὶ Πυθαγορικοῦ (or Πυθαγορείου) βίου).

Fourth. Finally, in the theorization of mnemonic particularism which the Pythagoreans cultivated as a way to certain knowledge, there was a last stage which was grounded on the ultimate bringing together of the two most characteristic tenets of Pythagoreanism. Thus Porphyry (drawing from Dicaearchus): μάλιστα μέντοι γνώριμα παρὰ πᾶσιν ἐγένετο πρῶτον μὲν ὡς ἄθανατον εἶναι φησι τὴν ψυχὴν, εἴτα μεταβάλλουσιν εἰς ἄλλα γένη ζώων, πρὸς δὲ τούτοις ὅτι κατὰ περιόδους τινὰς τὰ γενόμενά ποτε πάλιν γίνεται, νέον δ' οὐδὲν ἀπλῶς ἐστι, καὶ ὅτι πάντα τὰ γινόμενα ἔμψυχα ὁμογενῇ δεῖ νομίζειν. φαίνεται γὰρ εἰς τὴν Ἑλλάδα τὰ δόγματα πρῶτος κομίσαι ταῦτα Πυθαγόρας (Porphyry, Vita Pyth., 18 = DK 14 A 8a. In Wehrli's Dicaearchos there appears §18 of Porphyry's Vita Pyth. as Fr. 33, but unaccountably the following passage §19 is omitted). The doctrine of the eternal recurrence of identical world-cycles is early Pythagorean on good evidence. Besides Dicaearchus, Eudemus also elaborates on it, Fr. 88 Wehrli (from Simplicius quoting verbatim the old Peripatetic: εἰ δὲ τις πιστεύσειε τοῖς Πυθαγορείοις, ὥστε πάλιν τὰ αὐτὰ ἀριθμῶ, κάγω μυθολογήσω τὸ ραβδίον ἔχων ὑμῖν καθημένοις οὕτω, καὶ τὰ ἄλλα πάντα ὁμοίως ἔξει, καὶ τὸν χρόνον εὐλογόν ἐστι τὸν αὐτὸν εἶναι etc. Theopompus and Eudemus ascribed to the idea a Magian origin (Eudemus Fr. 89 Wehrli): ὅς (ss. Θεόπομπος) καὶ ἀναβιώσεσθαι κατὰ τοὺς Μάγους φησὶ τοὺς ἀνθρώπους καὶ ἀθανάτους ἐσεσθαι, καὶ τὰ ὄντα ταῖς αὐτῶν περικυκλήσεσι διαμενεῖν· ταῦτα δὲ καὶ Εὐδημος ὁ Ρόδιος ἰστορεῖ. (αὐτῶν περικυκλήσεσι rather than αὐτῶν ἐπικλήσεσι as in Jacobi Fr.Gr.H. 115 F64). Temporal sequence is not accidental: it repeats itself in its entirety sempiternally, and this must be for some reason. We are here moving into the archaic antecedens of Stoicism. Elsewhere I have proposed a candidate for the Pythagoreo/Heracleitean fusion required to generate the conception of a World unfolding itself according to a fixed law of development constituting a cyclic pattern. (A.L. Pierris, The Origin of Stoic Fatalism, esp. pp. 27-30, in Chypre et les Origines du Stoicism, Actes du Colloque Paris 12-13 Mai 1995, Publications du Centre Cultural Hellénique de Paris, 1996, pp. 21-30).

4) We have reached, in the previous section, the stage, where it appears that the idea of an ordered pattern of things is indeed implicated in the Pythagorean "Memorism". But there is much more in Pythagoreanism by way of cohesiveness and systematicalness than this rather loose implication. In the midst of Socrates' application of the doctrine of transmigration to the question of the possibility of learning (and thus of the possibility of real knowledge), we meet an unprepared, strong statement of the "kinship of nature": ἄτε γὰρ τῆς φύσεως ἀπάσης συγγενοῦς οὐσης etc. (Meno, 81c9-d1). The statement is a crucial link in the demonstration that there can be learning and scientific knowledge of diverse things. For the fact that all truth is

implicit in the soul (because through the eternal recycling she has “seen” visually and mentally everything of this and the other world) is not by itself sufficient to establish the real possibility of actual knowledge. What Socrates achieves by his invocation of the “kinship of all nature” doctrine is to show that once a single individual truth has been secured, all truth can in principle be obtained: ἄτε γὰρ τῆς φύσεως ἀπάσης συγγενοῦς οὐσης, καὶ μεμαθηκυίας τῆς ψυχῆς ἅπαντα, οὐδὲν κωλύει ἐν’ ἀναμνησθέντα - ὃ δὴ μάθησιν καλοῦσιν ἄνθρωποι - τᾶλλα πάντα αὐτὸν ἀνευρεῖν, ἐάν τις ἀνδρεῖος ᾗ καὶ μὴ ἀποκάμη ζητῶν· τὸ γὰρ ζητεῖν ἄρα καὶ τὸ μανθάνειν ἀνάμνησις ὅλον ἐστίν (81c9 – d5). It is now only a question of perseverance – and time, if not one life’s then of more. The point is of immense consequence: either no actual knowledge, or, in principle, absolute knowledge of reality.

[The thesis is made the object of a brilliant burlesque in the Euthydemus, 293b1-297b1. The two sophist-brothers engage in an exhibition of negative dialectics, or eristics, the offspring of Eleatism. Plato wants to show what havoc “strict thinking” can effect in the human quest of truth, if strictly pursued and applied. Euthydemus and Dionysiodorus argue on eristical grounds that εἴπερ ἐν’ ἐπίσταμαι, ἅπαντα ἐπίσταμαι (293d5); moreover, that πάντες πάντα ἐπίστανται, εἴπερ καὶ ἐν (294a10); furthermore, that not only one knows everything, if he knows anything, but also he always (καὶ αἰεὶ) knew everything (294e8; 295a8); and finally we reach in this crescendo the remarkable view that καὶ πρὶν αὐτὸς γενέσθαι, καὶ πρὶν οὐρανὸν καὶ γῆν γενέσθαι, ἠπίστω ἅπαντα, εἴπερ αἰεὶ ἐπίστασαι. καὶ ναὶ μὰ Δία, ἔφη, αὐτὸς αἰεὶ ἐπιστήση καὶ ἅπαντα, ἂν ἐγὼ βούλωμαι (296d1-4).

Eristics is founded on Eleatic thinking-absolutism, giving the wrong turn to it. The general pattern of inference can be put thus: if x is A, x is. If x is, x is Y (where Y is any (putatively) real content of being). Socrates repeatedly intimates the error of this procedure, in the course of the above argument. But he also explains the point of such eristics: it is preliminary preparation of the ground for the serious and important thing (277d1-278e1). This projected estimate on the part of Socrates, is offered after another show of “logical” derivations of puzzling absurdities, earlier in the dialogue, by the expert brothers. Interestingly enough, among that set of ἀτοπα is the demonstration that one has to negate both alternatives to the question πότερον οἱ μανθάνοντες μανθάνουσιν ἢ ἐπίστανται ἢ μὴ ἐπίστανται; (276d7-8 and sqq.).]

The cohesion of knowledge is clearly grounded on the kinship of nature: ἄτε γὰρ τῆς φύσεως ἀπάσης συγγενοῦς οὐσης etc. - because nature is in its entirety kindred etc. Now kinship connotes common progeny, the same (pro)genitors. That the natural world has all of it the same “ancestors”, means philosophically that it proceeds from the same ultimate duality of principles, which function in biological terms as the primeval conjugation of male and female. This all assumes its most forceful significance in connection with the Pythagorean theory of world-formation out of the conjunction of the two primary opposites, πέρας and ἄπειρον. Thus, e.g., in Philolaus, 44DK B1: αἱ φύσις δ’ ἐν τῷ κόσμῳ ἀρμόχθη ἐξ’ ἀπείρων τε καὶ περαινόντων, καὶ ὅλος <ο> κόσμος καὶ τὰ ἐν αὐτῷ πάντα. Philolaus explained that the dissimilar and alien natures of the two principles needed a supervening harmonious mixture or conjugation in order to bring forth the κόσμος, ordered existence: ἐπεὶ δὲ ταὶ ἀρχαὶ ὑπάρχον οὐχ ὁμοῖαι οὐδ’ ὁμόφυλοι ἔσσαι, ἥδη ἀδύνατον ἦς καὶ αὐταῖς κοσμηθῆναι, εἰ μὴ ἀρμονία ἐπεγένετο ὧς τινῶν ἄδε τρόπῳ ἐγένετο. τὰ μὲν ὧν ὁμοῖα καὶ ὁμόφυλα ἀρμονίας οὐδὲν ἐπεδέοντο, τὰ δὲ ἀνόμοια μὴδὲ ὁμόφυλα μὴδὲ ἰσοταγῇ ἀνάγκα τᾷ τοιαύτῃ ἀρμονίᾳ συγκεκλεῖσθαι, οἷα μέλλοντι ἐν κόσμῳ κατέχεσθαι (44 DK B6).

This harmonious conjugation brings integration and unity into the outcome: ἔστι γὰρ ἀρμονία πολυμιγέων ἔνωσις καὶ δίχα φρονεόντων συμφρόνησις (B10). Number (the carrier of

harmony) makes things related (kindred) to each other and knowable. Kinship and knowability of reality go hand in hand in Pythagoreanism: γνωμικὰ γὰρ αἱ φύσις αἱ τῶν ἀριθμῶν καὶ ἡγεμονικὰ καὶ διδασκαλικά τῶν ἀπορουμένων παντὸς καὶ ἀγνοουμένων παντί. οὐ γὰρ ἦς δῆλον οὐδενὶ οὐδὲν τῶν πραγμάτων οὔτε αὐτῶν ποθ' αὐτὰ οὔτε ἄλλω πρὸς ἄλλο, εἰ μὴ ἦς ἀριθμὸς καὶ αἱ τούτῳ οὐσία. νῦν δὲ οὗτος κατὰν ψυχὰν ἀρμόζων αἰσθήσει πάντα γνωστὰ καὶ ποτάγορα ἀλλάλοις κατὰ γνώμονος φύσιν ἀπεργάζεται σωματῶν καὶ σχίζων τοὺς λόγους χωρὶς ἐκάστους τῶν πραγμάτων τῶν τε ἀπείρων καὶ τῶν πεπερασμένων (B11, which see, the whole of it). Thus number is the conquering and self-subsisting cohesion of the eternal stay of things temporal and this-worldly alike: ἀριθμὸν εἶναι τῆς τῶν κοσμικῶν αἰωνίας διαμονῆς κρατιστεύουσιν καὶ αὐτογενῇ συνοχήν, B23 (deemed spurious by Diels-Kranz, but which sounds Philolaean in substance if not in phrasing). Αὐτογενῇ may even here mean kindred, as in Aeschylus, Suppl. 8, if indeed this is the right reading there. The idea finds a similar, in fact parallel, expression in another reputedly spurious fragment (B21), which again, however, seems to preserve, in the relevant part at least, sound Philolaean doctrine: the world is indestructible and eternal; ἀλλ' ἦν ὅδε ὁ κόσμος ἐξ αἰῶνος καὶ εἰς αἰῶνα διαμενεῖ, εἰς ὑπὸ ἐνὸς τῶν συγγενέος καὶ κρατίστῳ καὶ ἀνυπερθέτῳ κυβερνώμενος. This kindred and most powerful principle is immanent in it, the principle of harmony, that is divine number. Talk of kindredness refers to the biological (“hylozoistic”) model of conceiving reality in protoratality. Thus male and female form indeed one of the ten fundamental expressions of the primal contrariety in the list of Pythagorean syzygies according to Aristotle (Met. 986a22-26).

Plato utilises the same biological terminology to clarify the constitution of this world of becoming from its principles: ἐν δ' οὖν τῷ παρόντι χρὴ γένη διανοηθῆναι τριττά, τὸ μὲν γιγνόμενον, τὸ δ' ἐν ᾧ γίγνεται, τὸ δ' ὅθεν ἀφομοιούμενον φύεται τὸ γιγνόμενον. Καὶ δὴ καὶ προσεικάσαι πρέπει τὸ μὲν δεχόμενον μητρί, τὸ δ' ὅθεν πατρί, τὴν δὲ μεταξὺ τούτων φύσιν ἐκγόνῳ etc., Timaeus, 50c-d. Nature that grows out of its principles is like the offspring of its parents. All (natural) existence is thus kindred: it comes from the common couple of ancestors, πέρας and ἀπειρον, directly or through intermediation. In Philebus, similarly, natural reality is described as an offspring of πέρας and ἀπειρον, the becoming into substance (i.e. the φύσις) of things: ἀλλὰ τρίτον φάθι με λέγειν, ἐν τούτῳ τιθέντα τὸ τούτων (sc. of πέρας and ἀπειρον) ἐκγονον ἅπαν, γένεσιν εἰς οὐσίαν ἐκ τῶν μετὰ τοῦ πέρατος ἀπεργασμένων μέτρων (26d7-9). Behind, and at the root of, all this lies as usual a religiously formulated experience. Thus Pindar (again) Nem. VI, 1-7:

ἐν ἀνδρῶν, ἐν θεῶν γένος· ἐκ μιᾶς δὲ πνέομεν
ματρὸς ἀμφοτέρου· διεγείρει δὲ πᾶσα κεκριμένα
δύναμις, ὡς τὸ μὲν οὐδέν, ὃ δὲ
χάλκεος ἀσφαλὲς αἰὲν ἔδος
μένει οὐρανός· ἀλλὰ τι προσφέρομεν ἔμπαν' ἢ μέγαν
νόον ἥτοι φύσιν ἀθανάτοις etc.

Common maternal parenthood between gods and men, means the origin of both from Earth (and Heavens). We meet once more in these ideas of kindrednesses the account of the Titanic origin of manhood, i.e. OrphicoPythagorean wisdom.

5) But the real point of all this context-analysis is what bearing it has on Platonic dialectics. The Pythagorean “kinship of nature” doctrine is founded on the “mathematical” derivation of all reality from the dual principles of πέρας and ἀπειρον. On its turn, the doctrine grounds the

“cohesion of knowledge” conception. This again entails that truth can, in principle, be unfolded methodically in its entirety, once a single piece of certain knowledge has been established. But the paradigm case of indubitable knowledge is mathematics. Hence the process of philosophical learning (i.e. of dialectic as the road to absolute truth) must start at mathematical theory. This is why Socrates in the Meno provides an example of proper essential definition (and as an example it was explicitly adduced: ...πειρῶ εἰπεῖν, ἵνα καὶ γένηται σοι μελέτη πρὸς τὴν περὶ τῆς ἀρετῆς (and of everything else) ἀπόκρισιν, Meno, 75a8-9) by asking the τί ἐστίν question of shape (and, furthermore, associates with it the apparently non-mathematical concept of colour, which, however, was somehow reduced in Pythagoreanism to, (or, alternatively, was the reduction-basis of, or, at any rate, was essentially connected to) surface bounding a solid form, i.e. to shape). And this is, more importantly, why Socrates here gives an example of learning by “demonstrating” a mathematical theorem – and one in fact which is directly related to the (in)famous Pythagorean discovery of the incommensurability of the diagonal of a square with its side. Demonstration consisting in the eliciting of truth out of the learner’s mind through an appropriate framework of questioning.

Thus we have in effect the essence according to Plato of the Socratic probing. Elenchus consists in the methodical way of rendering knowledge explicit, of activating truth out of its slumbering status in human mind. In this elenctic process, the mind of the learner passes from a condition in which it thinks it knows but in reality is ignorant, to a state of ἀπορία in which it recognizes its ignorance. Then elenchus turns positive, the mind having been cleared from its false beliefs and rendered receptive to truth: now truth can be recognized as such and the state of knowledge achieved (84a3-d2). Certainly, in order for such truth to be stabilized as an exact and permanent possession of mind, repeated and systematic testing is necessary: καὶ νῦν μὲν γε αὐτῷ (i.e. in this first awakening of truth in the slave-boy’s mind) ὥσπερ ὄναρ ἄρτι ἀνακεκίνηται αἱ δόξαι αὐταί· εἰ δὲ αὐτόν τις ἀνερῆσεται πολλάκις τὰ αὐτὰ ταῦτα καὶ πολλαχῇ, οἷσθ’ ὅτι τελευτῶν οὐδενὸς ἤττονα κριβῶς ἐπιστήσεται περὶ τούτων (85c9-d1).

This is very close to the Pythagorean insistence on repeated checking with a view to secure comprehension of what was involved in the first awaking of (a given) truth in the mind: ἐν τε τῷ μανθάνειν οὐ πρότερον ἀφιέντες τὸ διδασκόμενον, ἕως περιλάβοιεν βεβαίως τὰ ἐπὶ τῆς πρώτης μαθήσεως (88 DK, D1 [from Aristoxenus] p. 467.21-2). Through the positive questioning, what the mind contained as latent knowledge and, at most, actual true belief (ἀληθὴς δόξα), becomes scientific knowledge: ἐνέσονται αὐτῷ (sc. τῷ ἀνθρώπῳ) ἀληθεῖς δόξαι, αἵ ἔρωτήσῃ ἐπεγερεῖσθαι ἐπιστήμαι γίνονται (86a7-8). This rousing of truth in the mind by means of appropriate examination implies that the truth of being exists always in the soul: αἰὲν ἡ ἀλήθεια ἡμῖν τῶν ὄντων ἐστὶν ἐν τῇ ψυχῇ (86b1-2). [Which again can be used to prove the immortality of the soul (86b2), - something announced in anticipation to the full development of the idea in the Phaedo, a dialogue to which Meno is clearly meant to serve in this respect as a preliminary].

Having now reached this stage, we may drop, if we feel inclined to do so, the ladder by which we ascended as far: the religious roots and formulations of these doctrines can be left out of the picture on suspension: καὶ τὰ μὲν γε ἄλλα οὐκ ἂν πάνυ ὑπὲρ τοῦ λόγου δι᾽ ὀχλοποιήσῃ (86b6-7). So much, however, is clear: with secure anchorage in mathematics, all truth of being can in principle be revealed (in substance, b7-c2).

6) Mathematical truth is not only the best starting point from which to elicit the entire truth of being. It also provides the methodology to do this. In the Meno (86d3-87c2), the pattern is taken

from the mathematical solution of geometrical problems. The question is to determine whether a given, particular object has the property A. And one shows that x will be A if x is B. This procedure depends on establishing the relationship $B \supset A$. In the Phaedo it is this drawing of conclusions from premises which are taken for granted in the given connection, that is called argument ex hypothesi. In this respect Phaedo stands to Meno in the same relationship as regards this systematically ambiguous employment of the terminology “hypothetical reasoning”, as with the utilization of the doctrine of ἀνάμνησις: here it is coloured by particularism, while in the Phaedo it is refined into the recollection of the idea of things which we perceive as (more or less) determined by the idea (as instances of the idea).

Hypothetical argument in the generalized sense relies on the principle of logical (and ontological) coherence. Phaedo 100a3-7: καὶ ὑποθέμενος ἐκάστοτε λόγον ὃν ἂν κρίνω ἔρρωμενέστατον εἶναι, ἃ μὲν ἂν μοι δοκῇ τούτῳ συμφωνεῖν τίθημι ὡς ἀληθῆ ὄντα, καὶ περὶ αἰτίας καὶ περὶ τῶν ἄλλων ἀπάντων [όντων], ἃ δ' ἂν μή, ὡς οὐκ ἀληθῆ. The hypothesis of one argument, may become the conclusion of another, which goes more deeply into the nature of reality. But one should exhaust first all relevant inferences from the given hypothesis (Phaedo, 101d1-e3): ...ἐχόμενος ἐκείνου τοῦ ἀσφαλοῦς τῆς ὑποθέσεως, οὕτως ἀποκρίναι ὅτι ἂν. εἰ δέ τις αὐτῆς τῆς ὑποθέσεως ἔχοιτο, χαίρειν ἐώης ἂν καὶ οὐκ ἀποκρίναι ἕως ἂν τὰ ἀπ' ἐκείνης ὀρμηθέντα σκέπαιτο εἰ σοὶ ἀλλήλοις συμφωνεῖ ἢ διαφωνεῖ. ἐπειδὴ δὲ ἐκείνης αὐτῆς δέοι σε διδόναι λόγον, ὡσαύτως ἂν διδοίης, ἄλλην αὖ ὑπόθεσιν ὑποθέμενος ἥτις τῶν ἄνωθεν βελτίστη φαίνοιτο, ἕως ἐπὶ τι ἱκανὸν ἔλθοις, ἅμα δὲ οὐκ ἂν φύροιο ὥσπερ οἱ ἀντιλογικοὶ περὶ τε τῆς ἀρχῆς διαλεγόμενος καὶ τῶν ἐξ ἐκείνης ὀρμημένων, εἶπερ βούλοιό τι τῶν ὄντων εὐρεῖν. Of course, one should test again and again to clarify the (logical) relationships, and make them certain (Phaedo, 107b).

The hypothetical argumentation is, however, described by Socrates in the renowned methodological excursus of Phaedo as δεύτερος πλοῦς (99c9-d1), something one embarks at having failed to comprehend the causal working of the principle of Goodness (τὸ ἀγαθόν) in the world. Since this argumentation involves also the postulation of the full-blown ideas, it follows that the theory of ideas cannot be Plato's ultimate explanation of reality. In the Republic, we are told in detail what is missing.

First, it is a question of moving in the reverse direction from that of a genuinely philosophical (i.e. dialectical) investigation: instead of drawing conclusions from premised hypotheses, one must ascend the ladder of logical and ontological presupposition towards the absolutely ἀνυπόθετον. ΣΤ, 510b4-9: ἢ τὸ μὲν αὐτοῦ τοῖς τότε μιμηθεῖσιν ὡς ἐικόσιν χρωμένη ψυχὴ ζητεῖν ἀναγκάζεται ἐξ ὑποθέσεων, οὐκ ἐπ' ἀρχὴν πορευομένη ἀλλ' ἐπὶ τελευτήν, τὸ δ' αὖ ἕτερον - τὸ ἐπ' ἀρχὴν ἀνυπόθετον - ἐξ ὑποθέσεως ἰοῦσα καὶ ἀνευ τῶν περὶ ἐκεῖνο ἐκόνων, αὐτοῖς εἶδεσι δι' αὐτῶν τὴν μέθοδον ποιούμενη. The conjunction of downwards inferential movement with the use of images is not necessary, as I have indicated above; and similarly with the upwards movement and pure thought. On the other hand “dialectics” cannot essentially utilize exemplification and instantiation. In fact dialectics consists in the thought-process through which one ascends to the ἀνυπόθετον principle of being and then descends orderly in all articulate variation of reality: ...ὁ λόγος ἀπτεται τῇ τοῦ διαλέγεσθαι δυνάμει (sc. the intelligible in strict sense), τὰς ὑποθέσεις ποιούμενος οὐκ ἀρχὰς ἀλλὰ τῷ ὄντι ὑποθέσεις, οἷον ἐπιβάσεις τε καὶ ὀρμάς, ἵνα μέχρι τοῦ ἀνυποθέτου ἐπὶ τὴν τοῦ παντὸς ἀρχὴν ἴων, ἀψάμενος αὐτῆς, πάλιν αὖ ἐχόμενος τῶν ἐκείνης ἐχομένων, οὕτως ἐπὶ τελευτὴν καταβαίνει, αἰσθητῶ παντάπασιν οὐδενὶ προσχρώμενος, ἀλλ' εἶδεσιν αὐτοῖς δι' αὐτῶν εἰς αὐτά, καὶ τελευτᾷ εἰς εἶδη, 511b3-c2 (cf. c4-d2).

Secondly, and chiefly, in book Z, Plato offers a first level description of dialectics. The foundation is provided by the mathematical “sciences” (not strictly science, ἐπιστήμη, yet not mere true belief, ὀρθὴ δόξα, but intelligence in between, διάνοια). This is developed in 525a-531c. One should then concentrate on what is common to the various mathematical branches (531c9-d4). If this is done with a view to reaching to the ἀνυπόθετον, we have dialectics (cf. 531d5-532a5) esp. 532a5-b4: οὕτω καὶ ὅταν τις τῷ διαλέγεσθαι ἐπιχειρῇ ἀνευ πασῶν τῶν αἰσθήσεων διὰ τοῦ λόγου ἐπ’ αὐτὸ ὃ ἐστὶν ἕκαστον ὁρμᾶν, καὶ μὴ ἀποστή πρὶν ἂν αὐτὸ ὃ ἐστὶν ἀγαθὸν αὐτῇ νοήσῃ λάβῃ, ἐπ’ αὐτῷ γίγνεται τῷ τοῦ νοητοῦ τέλει, ὥσπερ ἐκεῖνος τότε ἐπὶ τῷ τοῦ ὁρατοῦ (referring back to 507c10-509c2). - Παντάπασιν μὲν οὖν, ἔφη. - Τί οὖν; οὐ διαλεκτικὴν ταύτην τὴν πορείαν καλεῖς; Mathematics becomes dialectical when it searches for first principles (533b1-e2); esp. 533c7-d7: ...ἡ διαλεκτικὴ μέθοδος μόνη ταύτη πορεύεται, τὰς ὑποθέσεις ἀναιροῦσα, ἐπ’ αὐτὴν τὴν ἀρχὴν ἵνα βεβαιώσῃται ... ἄς (sc. mathematical disciplines) ἐπιστήμας μὲν πολλάκις προσείπομεν διὰ τὸ ἔθος, δέονται δὲ ὀνόματος ἄλλου, ἐναργεστέρου μὲν ἢ δόξης, ἀμυδροτέρου δὲ ἢ ἐπιστήμης -διάνοιαν δὲ αὐτὴν ἐν γε τῷ πρόσθεν που ὠρίσασθα etc. Once the ἀνυπόθετον has been reached and the idea of goodness made the pivot of mathematics, elenchus takes up its positive aspect: ὃς ἂν μὴ ἔχη διορίσασθαι τῷ λόγῳ ἀπὸ τῶν ἄλλων πάντων ἀφελὼν τὴν τοῦ ἀγαθοῦ ιδέαν, καὶ ὥσπερ ἐν μάχῃ διὰ πάντων ἐλέγχων διεξιὼν, μὴ κατὰ δόξαν ἀλλὰ κατ’ οὐσίαν προθυμούμενος ἐλέγχειν, ἐν πάσι τούτοις ἀπτῶτι τῷ λόγῳ διαπορεύηται, etc. (534b8-c3). Thus dialectics is the θριγκὸς τοῖς μαθήμασιν and their τέλος (534e2-535a1).

I have maintained and argued for elsewhere the essential coherence between the programmatic description of higher philosophy in the Republic and the Laws on the one hand, and between that programme and the reputed carrying it out in the Unwritten Doctrines (and in the discourse περὶ τοῦ ἀγαθοῦ) on the other,. [V. A.L. Pierris, The Metaphysics of Politics in the Politeia, Politikos and Nomoi Dialogue Groups, in A. Havlicek – F. Karfik (eds.) The Republic and the Laws of Plato, Proceedings of the First Symposium Platonicum Pragense, pp. 117-145, esp. pp. 120-126, 130 sqq.].

7) In the final section of the Meno we have the inimitable Daedalic similitude: true beliefs exist side by side with false ones in the soul of the unphilosophical (= undialectic) vulgar. For as long as they are entertained by the mind (for as long as they lay hold of it), no harm is being done by the fact that they do not still constitute proper scientific knowledge: καὶ γὰρ αἱ δόξαι αἱ ἀληθεῖς, ὅσον μὲν ἂν χρόνον παραμένωσιν, καλὸν τὸ χρῆμα καὶ πάντ’ ἀγαθὰ ἐργάζονται (97e6-98a1. Cf. 97a9-c10).

[It is a different matter, whether the condition of true belief is empirically distinguishable from the state of real knowledge. The answer lies, for Plato, in the affirmative. For true beliefs lack the systematical cohesion and ultimate dependence on first principles that scientific knowledge possesses].

[The Daedalic simile had been utilized in exactly the same way before in the Euthyphro (10b9 – e1). Like the Daedalic works τὰ ἐν τοῖς λόγοις ἔργα ἀποδιδράσκει καὶ οὐκ ἐθέλει μένειν ὅπου ἂν τις αὐτὰ θῇ (10c3-4). But the λόγοι must be stable and immovable: ἐβουλόμην γὰρ ἂν μοι τοὺς λόγους μένειν καὶ ἀκινήτως ἰδρῦσθαι μᾶλλον ἢ πρὸς τῇ Δαιδάλου σοφίᾳ τὰ Ταντάλου χρήματα γενέσθαι (d7-e1). – In the Laches we have the image of λόγος “capturing” the essence of things and not letting it “escape”: νοεῖν μὲν γὰρ ἐμοίγε δοκῶ περὶ ἀνδρείας ὅτι ἐστὶν, οὐκ οἶδα δ’ ὅπῃ με ἄρτι διέφυγεν, ὥστε μὴ συλλαβεῖν τῷ λόγῳ αὐτὴν καὶ εἰπεῖν ὅ,τι ἐστὶν (194b1-4). (Just as in the Meno it is declared concerning virtue, περὶ ἀρετῆς ὅ,τι ποτ’

ἔστιν τὸ παράπαν οὐκ οἶδα). The (right) reason should “certify” and secure the meaning (or essence) of things: σὺ δ’ εἰπὼν ὅ,τι γῆν’ ἀνδρείαν εἶναι, ἡμᾶς τε τῆς ἀπορίας ἐκλῦσαι καὶ αὐτὸς ἂν νοεῖς τῷ λόγῳ βεβαίωσαι (194c4-6)].

However useful it may be, true belief, nonetheless, is not a permanent possession of mind, being intrinsically unstable – exactly by virtue of its lack of systematic cohesiveness in a “body” of knowledge organized in ramified articulation with a single (or dual) dependence on ultimate “beginning(s)”, on ἀρχή (or ἀρχαί): This is how the point is being put in the relevant Menonian passage: true beliefs do not last for long in the mind, but tend to flee in time away from it, to “escape”, and so are not of great value, ὥστε οὐ πολλοῦ ἀξιαί εἰσιν, ἕως ἂν τις αὐτὰς δῆσῃ αἰτίας λογισμῷ. τοῦτο δ’ ἐστίν, ὃ Μένων εἰταῖρε, ἀνάμνησις, ὡς ἐν τοῖς πρόσθεν ἡμῖν ὡμολόγηται. ἐπειδὴ δὲ δεθῶσιν, πρῶτον μὲν ἐπιστῆμαι γίνονται, ἔπειτα μόνιμοι· καὶ διὰ ταῦτα δὴ τιμιώτερον ἐπιστήμη ὀρθῆς δόξης ἐστίν, καὶ διαφέρει δεσμῷ ἐπιστήμη ὀρθῆς δόξης (98a3-8).

True beliefs become permanent scientific acquisitions of mind by being “bound” to it. And this fixation is being effected by adducing the λογισμὸς αἰτίας, the thought-connection to the cause, the calculus which starts with principles. Now the transformation of true belief into knowledge has been affirmed before (ἐν τῇς πρόσθεν ἡμῖν ὡμολόγηται) to be the work of ἀνάμνησις (as essential learning). “Before” refers to 86a7-8: ...ἐνέσονται αὐτῷ (sc. to man) ἀληθεῖς δόξαι, αἱ ἐρωτήσῃ ἐπεγερεῖσθαι ἐπιστῆμαι γίνονται. The awakening of what is lumbering in the soul, the arousing of what is latent, by means of dialectical questioning, constitutes precisely the process of ἀνάμνησις.

Now at the end of the dialogue this is identified with λόγον διδόναι and indeed λόγον τῆς αἰτίας. It is a step forward: to the doctrine of the kinship of nature, and its conjugate tenet on the cohesion of knowledge, it is here summarily but explicitly added that kinship and cohesion, the systematic connectedness of reality and truth, is due to the fact that being and intelligibility proceed from principles (causes), and, ultimately, from ultimate principles (causes). Αἰτία is left (deliberately) generally meant in the Meno: it can refer to the (mediate) causality of the ideas, according to the classical Theory of Ideas as in the Phaedo; it can also refer to the final causality of the Idea of Goodness as in the Republic; it can further refer, to the category of (efficient) causality as in the Philebus and the Timaeus; and it can finally refer equally well to the ultimate causality of the Principles of Being as in the Unwritten Doctrines, the περὶ τὰγαθοῦ seminar and the Aristotelian testimony. By introducing, as if accidentally, this notion of αἰτία at the end of the dialogue, Plato points to the reason of being’s cohesiveness and, ipso facto, to the reason of the possibility of scientific knowledge: this reason consisting in being’s (and thereby truth’s) dependence on – or analysis in – first principles. Given the Pythagoreanism of the setting, these principles have to be the principles of number, πέρας and ἄπειρον. On this reading, we have already here presupposed the doctrine of the mathematical structure of reality, of the mathematical constitution of being.

It is so very alluring, on closer analysis, to discover intriguing traces, dispersed providentially by Plato, the creator of his own work-world, all over the corpus, of a complete “system”, whose differing aspects and parts are expressed in the various dialogues according to a magisterial plan, a feat of calculativeness.

III

The Platonic dialogues appear to be pieces of a gigantic teaching programme. They provide examples of what they profess to illustrate, dialectical (philosophical) elenchus. Their

interpretation is greatly facilitated, if we will take Plato on his word: he handles problems in the way he says they should be handled.

A Platonic dialogue is an act of teaching as Plato understood it. This explains why he is dissatisfied with the written word (Phaedrus, 274c-275c; 275d-278b), in favour of the oral, living and ensouled word of him who knows (276a8-9; cf. 276a5-7). Plato is for the awakening-theory of learning, against the transmission-theory. Knowledge involves the principle of its (theoretical and practical) self-validation in all conceivable connections and circumstances; it is not something that can be put in a code and fully expressed by a mechanical rule incapable of “growing” responses in accordance with the encountered situation in each case.

[To be occupied with the dead letter is a plaything, a game which can be played either depravedly (φαύλη παιδιὰ) in ignorance, or elegantly and dexterously (παγκάλη παιδιὰ) with in-depth knowledge of the essential nature of reality (276e1-3; cf. 276b; d). Thus we properly understand the frequent use of καλὰ, κάλλιστα in the Meno. But the even more beautiful serious study and engagement in expressing and teaching the veritable truth of things happens ὅταν τις τῇ διαλεκτικῇ τέχνῃ χρώμενος, λαβὼν ψυχὴν προσήκουσαν, φυτεὺν τε καὶ σπείρῃ μετ’ ἐπιστήμης λόγους, οἳ ἑαυτοῖς τῷ τε φυτεῦσαντι βοηθεῖν ἱκανοὶ καὶ οὐχὶ ἄκαρποι ἀλλὰ ἔχοντες σπέρμα, ὅθεν ἄλλοι ἐν’ ἄλλοις ἤθεσι φυόμενοι τοῦτ’ αἰεὶ ἀθάνατον παρέχειν ἱκανοί, καὶ τὸν ἔχοντα εὐδαιμονεῖν ποιοῦντες εἰς ὅσον ἀνθρώπῳ δυνατόν μάλιστα (276e5 – 277a4). The living reason of being is fertile and multidynamic, a productive polydynamism; v. 277b5 – c6. The written word, on the contrary, is a matter of play, not worthy of much seriousness, being only, at best, a means of reminding one of the real and living thing (υπόμνησις); v. 277e5 – 278b4].

Learning consisting in recollection, the teacher should simply help methodically in the arousing of truth within the learner’s mind. This method and process of awaking (on the higher level of truth in the realm of scientific (= philosophical) knowledge) is dialectics. The Platonic dialogue endeavours to reproduce the dynamic life of an oral questioning, guided by the knowledge of the teacher but attentive to the sensibilities of the learner: hence its employment of (philosophical) symbolism, of (philosophical) rhetoric, of (philosophical) artistry, of (philosophical) disputativeness, of (philosophical) love, each and all of them according to the needs and merits of the case.

A Platonic dialogue may restrict itself chiefly to the negative results of elenchus (the early, “Socratic” dialogues), concentrate on the road to genuine knowledge out of the state of ἀπορία resulting upon the application of negative dialectics (the “middle” dialogues), or develop themes of positive dialectics (always on the lesser side of ultimate sufficiency (ικανόν), even in the latest works). Such an understanding provides the rationale for the traditional division of the Platonic corpus, without in the least invalidating the fundamental classification according to the existence, and the degree of elaboration, of Pythagoreanism in a Platonic work.

In the Meno the awakening worked up has first of all to do with awakening itself. We have the first written-word exposure of the doctrine of ἀνάμνησις. As to the proclaimed subject of the dialogue (virtue and its teachability), important steps have been taken in its proper understanding. First, excellence (virtue) is intrinsically connected with the truth of things. Second, excellence (virtue) appears to exist as moral and civic virtue unconnected to proper scientific knowledge of reality, and hence unteachable. Third, in such an empirically observable condition, excellence (virtue) can only involve true belief (ορθὴ δόξα) and, hence (wanting in systematic cohesion – the logical and ontological criterion of real knowledge as of true being – can only) be a matter of, in effect, divine grace. Fourth, applying the recollection-procedure (and

associated dialectics) to that common excellence (virtue), we can transform its associated pattern of true beliefs into real scientific knowledge. Fifth, this transformation can only be effected by going thoroughly and deeply into the essential nature of excellence (virtue). (Which means forming a coherent system dependent on first principles, in which excellence (virtue) possesses its natural position).

So, clearly, at the end of the dialogue: ἕκ μὲν τοίνυν τούτου τοῦ λογισμοῦ, ὃ Μένων θεία μοῖρα ἡμῖν φαίνεται παραγιγνομένη ἡ ἀρετὴ οἷς ἂν παραγίγνηται· τὸ δὲ σαφὲς περὶ αὐτοῦ εἰσόμεθα τότε, ὅταν πρὶν ὅτινι τρόπῳ τοῖς ἀνθρώποις παραγίγνηται ἀρετὴ, πρότερον ἐπιχειρήσωμεν αὐτὸ καθ' αὐτὸ ζητεῖν τί ποτ' ἐστὶν ἀρετὴ. νῦν δ' ἐμοὶ μὲν ὥρα ποιῆναι etc. (100b2-7). The presumably hereby promised enterprise to define excellence (virtue) is in fact carried out in the Republic.

I have furthermore suggested above the preliminary character of the Meno, vis-à-vis the Phaedo, not least with regard to the development of the theory of ἀνάμνησις. Thus we discover a learning Platonic triad: Meno – Phaedo - Republic. Or rather, introducing as well the Phaedrus as a teaching-learning manifesto (probably composed and published on the inauguration of the Platonic Academy), we establish a didactic tetrad: Meno – Phaedo – Phaedrus – Republic (esp. the middle books).