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Socrates (*AP* 14.1[-64])

A Pythagorising Middle Platonist?

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Abstract

This article aims to investigate the identity of Socrates, the compiler of *AP* 14.1-64 (arithmetic problems and riddles). Leaving aside the traditional, but very uncertain, identification with Socrates the epigrammatist (D.L. 2.47), it is shown that the chronological conjecture by Carcopino 1926 (late 1st century BC-2nd century AD) no longer holds. A wider time frame is established (1st-4th centuries AD), although evidence from the (fairly) securely attributable poem (*AP* 14.1) seems to point to the mid-2nd century AD as the most plausible period of the poet's activity. It is suggested that Socrates was a Pythagorising Middle Platonist associated with the philosopher Calvenus Taurus, even if his relationship with the Neo-Pythagorean and Middle Platonic traditions remains difficult to define precisely. The article also considers some of the relationships that have been shown to exist between diverging directions in Pythagoreanism (Delatte 1922), offering corrections for future attempts at *Quellenforschung*.

Keywords

Socrates (epigrammatist) – (Neo-)Pythagoreanism – Middle Platonism – Calvenus Taurus – arithmetic epigrams – *AP* 14.1-64

Almost all of the 45 arithmetic problems (ἀριθμητικά) of the fourteenth book of the *Palatine Anthology* are thought to derive from two collections, one attributed to a certain Metrodorus (*AP* 14.116-146; cf. lemma to 116: Μητροδώρου

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ἐπιγράμματα ἀριθμητικά)[1] and the other (which also contains a number of riddles) to a Socrates (*AP* 14.1-64; cf. lemma to 1: Σωκράτους).[2] While the former figure has recently been given special attention,[3] the latter has not received the attention it deserves. Indeed, thus far there has been no serious attempt to investigate the identity of Socrates, and while some have dismissed the possibility of reconstructing the historical profile of the poet,[4] others have suggested that his name might in fact be a "törichtes Pseudonym".[5] A partial exception to these rather pessimistic trends was Carcopino, who, in his study

1 Most scholars do not include *AP* 14.147, a variant of the λογιστικὸν πρόβλημα propounded by Homer in *Certamen* 143-145, in Metrodorus' collection (for two exceptions, see Geffcken 1932 and Page 1981, 71; Mendell 2018, 217 n. 100 is uncertain), and perhaps quite justifiably—unlike most of the other ἀριθμητικά, the poem is equipped with a non-Metrodorean scholium, on which see Auerbach 1929 (with Kwapisz 2020a); it is also accompanied by its own lemma rather than by ἄλλο, as in most other cases. On Metrodorus' collection, see now Teichmann 2020, whose main aim, as she boldly claims, is to reconstruct "Metrodorus' text" (p. 86). However, she has taken the texts of the epigrams and the scholia, respectively, from Beckby 1968 (erroneously cited as 1965) and Tannery 1895 (albeit with occasional minor modifications), without attempting to provide a full reconstruction of the original arrangement of the collection (in this respect, a notable omission is Tannery 1894; but cf. also Buffière 1970, 35-36, with a slightly different reconstruction). Furthermore, it is still unclear whether Metrodorus (whoever he might have been) limited himself to compiling and annotating his collection or whether he also authored some poems (for the *status quaestionis*, see Grillo 2019, 250 n. 4).

2 ἀριθμητικά: 1-4, 6-7, 11-13, 48-51. It is quite plausible that the collection comprised the epigrams up to 64 (see the convincing arguments adduced by Maltomini 2008, 194-195); on the extent of the collection, see also Mendell 2018, 217, who, however, is more vague and seems to exclude riddles 63-64. Tannery 1894 speaks of a Socratic "série" (but see Tannery 1895, XI), albeit excluding the riddles (problems 48-51 are deemed likely to represent a later addition, whereas problems 2-3 and 6-7 are shown to belong to Metrodorus' collection as well).

3 See Grillo 2019, where I show that the identity of Metrodorus is nowhere near as certain as some scholars assume, and that one of the most commonly accepted identifications stems from a distorted conflation of two homonymous (pseudo-)historical figures.

4 Pontani 1981, 150 and Grandolini 2006, 343. Teichmann 2020, 87 dodges the issue.

5 Geffcken 1927, 804. For a similar suggestion regarding Metrodorus' name, see Buffière 1970, 37 (*contra* Grillo 2019, 252 with n. 15). Kwapisz 2020b, 480-481 goes further than Geffcken (whom he does not cite) and argues that Socrates' name is meant to evoke Plato's Socrates. He believes that Socrates' original collection (which he claims has not been preserved in its entirety) was intended to be reminiscent of Plato's *Laws* in two ways, not only because those ἀριθμητικά that deal with apples (3, 48), crowns (49) and bowls (12, 50) recall the teaching methods ascribed to the Egyptians in *Lg*. 819a-c, but also and more especially because, in his view, (some of) the solutions of the epigrams allude to the number 5040 (i.e. the ideal number of citizens in the *Laws*). His overall argument is intriguing, but he cites little arithmological evidence in support of the possible existence of numerological connections. He also attempts to date a few epigrams. While his dating of *AP* 14.1 (4th century AD) is consistent with one of the time frames I establish below, the linguistic evidence he presents does not

of the Neo-Pythagorean Basilica of Porta Maggiore in Rome (henceforth referred to simply as Basilica), attempted to establish a wide chronological framework for the poet's life and activity. Like most other scholars, however, he assumed that Socrates was the same person as the epigrammatist mentioned by Diogenes Laertius among the namesakes of Socrates the Athenian philosopher (D.L. 2.47),[6] when in fact the identification is far from being conclusively established.

My main aim here is not to corroborate or reject the identification between the two homonymous figures (which might prove very difficult, if not impossible), but rather to attempt to reconstruct the identity of Socrates the compiler of *AP* 14.1-64.[7] I will first discuss the chronological conjecture put forward by Carcopino and show that, quite apart from the scholar's identification between the two Socrateses and his use of Diogenes' passage, it rests upon very slender grounds. This will lead me to contextualise the poet, thus suggesting a new chronology. I will establish two time frames: one looser, one tighter. The first comprises the lowest and uppermost possible limits for Socrates, whereas the second coincides with what arguably is the most plausible period of his activity. The whole discussion will mainly pivot around evidence from his collection, in particular from the only poem that can be fairly securely attributed to him. There will emerge a relationship between Socrates and the Neo-Pythagorean and Middle Platonic traditions, even if it remains difficult to define precisely. I will give some consideration to the relationships that have been shown to exist between certain divisions within the Pythagorean society. Although largely overlooked, one of these divisions is of crucial importance in determining the identity of Socrates. I will conclude by offering some preliminary observations on the implications of my discussion for the reconstruction of the tradition of diverging directions in Pythagoreanism in terms of source criticism.

seem conclusive. His important article appeared too late to be fully incorporated here, but I encourage the reader to consult it for more details.

6 Carcopino 1926, 254. This identification, first made tacitly by Jacobs 1801, 335, was also accepted by Tannery 1894, 61-62 and 1895, XI; Beckby 1968, 72; Pontani 1981, 150; Calderón Dorda 1992, 16; Grandolini 2006, 343. Requena Fraile 2006, 20 and Brodersen 2020, 270 are more tentative, although the latter (p. 271) seems to take Diogenes' mention as a *terminus ad quem* (rather than *ante quem*) for the activity of the Socrates of *AP* 14. Buffière 1970, 34 and Teichmann 2020, 87 n. 7, on the other hand, remain agnostic.

7 If we leave aside *AP* 14.1, it might perhaps be wiser to regard Socrates as compiler rather than author because, to date, the authorship question has not been systematically investigated. Tannery 1894, 62 thought that, at the very least, the first four problems should be attributed to Socrates. For *AP* 14.2-4 as anonymous, see Buffière 1970, 34; Pontani 1981, 154-155; Grandolini 2006, 341. See also Beckby 1968, 174-176, who even doubts the attribution of the opening poem.

Let us begin by reading *AP* 14.1. The poem is a hymnic dialogue between Pythagoras and Polycrates, tyrant of Samos, thus serving as a proem to the ἀριθμητικά:[8]

> Ὄλβιε Πυθαγόρη, Μουσέων Ἑλικώνιον ἔρνος,
> εἰπέ μοι εἰρομένῳ ὁπόσοι σοφίης κατ' ἀγῶνα
> σοῖσι δόμοισιν ἔασιν ἀεθλεύοντες ἄριστα.
> —τοιγὰρ ἐγὼν εἴποιμι, Πολύκρατες· ἡμίσεες μὲν
> ἀμφὶ καλὰ σπεύδουσι μαθήματα· τέτρατοι αὖτε
> ἀθανάτου φύσεως πεπονήαται· ἑβδομάτοις δὲ
> σιγὴ πᾶσα μέμηλε καὶ ἄφθιτοι ἔνδοθι μῦθοι·
> τρεῖς δὲ γυναῖκες ἔασι, Θεανὼ δ' ἔξοχος ἄλλων.
> τόσσους Πιερίδων ὑποφήτορας αὐτὸς ἀγινῶ.[9]

> Blessed Pythagoras, Heliconian shoot of the Muses,
> answer my question, tell me how many in your house
> are striving for wisdom, acquitting themselves superbly.
> —Thus may I tell you, Polycrates: one half are intent
> upon studying exquisite branches of science; one quarter
> relentlessly delve into the undying nature; one seventh
> are committed to absolute silence and unceasing inner discourses.
> Three are women, and foremost amidst them is Theano.[10]
> So many interpreters of the Pierian Muses I myself lead.

Mathematically speaking, the problem leads to a linear equation with one unknown, the solution being 28, a perfect or complete number in the sense given by Euclid and common among the Neo-Pythagoreans.[11] Because the Basilica

8 See Grandolini 2006, 345-346, who focuses on the hymnic features of the poem.

9 *AP* 14.1. The translation is mine, as are all other translations unless otherwise indicated.

10 According to Singmaster 1984/1985, 12, Theano is not counted (he follows the translation by Paton 1918, 27: "There are also three women, and *above the rest* is Theano", my emphasis). On Theano (disciple or wife of Pythagoras) and her works, see Nisticò 2003 and Plant 2004, 68-75.

11 Euc. 7 *def.* 23 (complemented by 9.36): τέλειος ἀριθμός ἐστιν ὁ τοῖς ἑαυτοῦ μέρεσιν ἴσος ὤν ('A perfect number is that which is equal to its own parts', i.e. all its proper divisors including 1). Sources from the 2nd to the 4th centuries AD expand the Euclidean notion of perfect number, further distinguishing it from the so-called 'over-perfect' and 'defective' numbers. Cf. Theo Sm. 45.9-46.12; more fully, Nicom. *Ar.* 1.16 (39.6-44.7) and Iamb. *In Nic.* 31.22-34.26; Heath 1921, 74-75; Acerbi 2005, 335-338.

had the same number of members[12] and because, as has been noted, Socrates was identified with the homonymous epigrammatist of D.L. 2.47, Carcopino suggested that the poet lived between the end of the Hellenistic period and the 2nd century AD,[13] not too distant in time from the construction of the edifice (mid-1st century AD). Carcopino also argued that in both cases the number 28 would represent what at that time was deemed to be the typical size of a Pythagorean clique, and that Socrates derived it from either direct or indirect experience. This may be over-speculative, and in fact our extant literary sources give a much higher number of followers of Pythagoras (in Croton rather than in Samos), ranging from 300 to 600 and even 2000.[14]

The solution of the problem, I would contend, should not be taken as basis for the chronology of Socrates, not least because it does not establish a direct connection with the Basilica. While it is true that the concept of perfect number, in its number-theoretic sense, is not explicitly attested before Euclid, its discovery may date back to the time of Plato or even earlier.[15] Moreover, the perfect number 28 appears in many discussions of the doctrine of the four phases of the moon, including that of Varro (*ap*. Gell. 3.10.6) and Philo of Alexandria (*De Opif*. 101),[16] and it has been suggested that parallels in arithmological writings spanning eight centuries (from Posidonius to Isidore of Seville) come from a single, possibly Neo-Pythagorean, source of the 2nd century BC.[17] So all we can say with certainty is that Socrates' choice of the number 28 has been

12 Carcopino 1926, 249 infers the number from the funerary stuccoes decorating the interior walls of the cella of the Basilica. Strong and Jolliffe 1924, 98 rather think of "distinguished or specially venerated members of the collegium or fraternity".

13 Carcopino 1926, 254-255; *pace* Burkert 1972, 193 n. 6 (followed by Zhmud 2012, 185 n. 62), who took the conjectural date to coincide with the 1st century AD.

14 See Carcopino 1926, 255 n. 3, citing Delatte 1922, 9 and Zhmud 2012, 95 with n. 146, who erroneously cites *Schol*. Pl. *R*. 600b as 600c. The highest number is from Nicom. *ap*. Porph. *VP* 20.

15 See Acerbi 2005, who (*contra* Zhmud 2012, 408 n. 80) finds an allusion to perfect numbers in Pl. *Tht*. 204b-c (on the hexad) and proposes to ascribe their (formalised?) invention to Theaetetus; for a summary of earlier work establishing a connection with ancient Egypt, see pp. 338-341.

16 For discussion of this and other similar passages, see Runia 2001, 275-277. For further Greek arithmological sources mentioning the number 28, see Burkert 1972, 431 n. 28, who refers, among others, to frr. 97-98 Wehrli (= Macr. *Somn*. 1.6.65 and Ps.-Iamb. *Theol.Ar*. 62.8-63.1), both reporting the views of Diocles of Carystus and Strato of Lampsacus on the stages of embryonic development. Note, however, that Ps.-Iamb. *Theol.Ar*. 62.13-16, the lines containing the reference to the arithmological value of 28, were most likely added by Ps.-Iamblichus or his source Nicomachus (van der Eijk 2000, 93 prints them in smaller type), and that there is no similar reference in Macrobius' passage.

17 Robbins 1921.

determined by its perfection,[18] as is the case with the Basilica and perhaps also with Ath. 1.4e, who assigns 28 members to Plato's συσσίτιον.[19] In this connection, it is worth noting that, as in a few other ἀριθμητικά (cf. *AP* 14.3.3-13, 4.3-8, 117.1-6, 129.3-6), the calculational problem posed in *AP* 14.1 is formulated as the answer to a question which introduces the epigram.[20] Grandolini calls this "risposta-indovinello", thus emphasising the riddling nature of the text.[21] One could even go further and argue that Pythagoras' answer parallels, to some extent at least, one of the three kinds of *symbola* or ἀκούσματα ascribed to the Pythagoreans in ancient sources.[22]

I say to some extent both because such cryptic sayings are considerably shorter (usually no more than a few words or a phrase) and because Pythagoras answers the question 'How many?' rather than 'What is it?'—the other two kinds answer the questions 'What is most?' and 'What should (or should not) be done?', respectively. Nevertheless, by making a concealed reference to the perfect number 28, the problem may bring to mind the famous *symbolon* on the τετρακτύς (Iamb. *VP* 85), the tetrad in which the basic harmonic ratios are included and which comprises the numbers from 1 to 4, whose sum adds up to the (non-Pythagorean) perfect number 10.[23] (For the Pythagoreans, the only perfect number is 3, whereas the idea of the perfection of the number 10, which, according to Arist. *Metaph.* 986a8-9, consists of encompassing the whole nature of numbers, goes back to the Academy.)[24] Although 28 and 10 correspond to two different concepts of perfect number (one mathematical

18 See already Reghini 1991, 26 n. 12.

19 This point of coincidence between *AP* 14.1 and Ath. 1.4e has been pointed out by Burkert 1972, 431 n. 28, although without offering any explanation; cf. the remark by Kaibel 1887, 9 app. crit. to line 15: "convivarum numerum nemodum expedivit". The term συσσίτιον is better understood as referring to the *Symposium* (Olson 2007, 23 n. 48) rather than to the Academy (Burkert 1972, 431 n. 28).

20 See Cairns 1973, 15.

21 Grandolini 2006, 346. One characteristic feature of riddles is the presence of a question, even if it is not always formulated in interrogative form; see Potamiti 2015, 143, with further bibliography. For direct questions in the ἀριθμητικά, cf. *AP* 14.130.3, 132.8 and 136.7.

22 On the *symbola*/ἀκούσματα, which in Iamb. *VP* 82-86 (ultimately from Aristotle) are distinguished according to the questions they answer, see e.g. Göttling 1851 (outdated but still valuable); Hölk 1894; Boehm 1905; Delatte 1915, 274-307; Burkert 1972, 166-192; Hüffmeier 2001 (on Porph. *VP* 36-45); see also, more recently, Zhmud 2012, 169-174, 176-179, 191-205, who argues that the *symbola*, and in particular those of a prescriptive or prohibitive nature, did not govern the βίος Πυθαγορικός. Against this, see Gemelli Marciano 2014, esp. 133-144; for an intermediate view, see Thom 2013.

23 On the τετρακτύς, see esp. Delatte 1915, 249-268.

24 See Zhmud 2012, 404-409, 425-426; *contra* e.g. Heath 1921, 75; Burkert 1972, 431; Acerbi 2005, 335.

and the other more philosophical),[25] it is probably not insignificant that they both share one arithmological feature with the number 4: "come il quattro è il primo numero dopo la terna e quindi è una nuova unità, ed il dieci è primo numero dopo la terna di terne od enneade ed è quindi anche per noi una nuova unità, così il 28 è il primo numero dopo la terna di enneadi o dopo l'enneade di terne; e quindi è anche esso una nuova unità".[26] The connection we see here between the ἀριθμητικά (and in particular the Socratic poem), riddles and *symbola* becomes closer if we consider that the *symbola* receive, among other names, those of αἰνίγματα (or αἰνιγμοί) and προβλήματα,[27] and that Iamblichus, who intensified the process of Pythagoreanisation of Platonism begun by his Middle Platonic and Neo-Platonic predecessors, is emphatic about the symbolic and enigmatic aspects of Pythagoreanism.[28] The general picture which emerges is clear enough. Socrates must have been either a Neo-Pythagorean or a Middle (or Neo-) Platonist. But let us see whether we can learn anything more from the text.

An interesting, but by no means less problematic, clue to the date and identity of Socrates comes from the reference to three distinct groups of Pythagoreans (lines 4-7), which, although not explicitly named, correspond to the ἀκουστικοί (lines 6-7), μαθηματικοί (lines 4-5) and φυσικοί (lines 5-6) whom we find mentioned in the account of the Pythagorean system of education attributed to the Middle Platonist Calvenus Taurus (*fl.* AD 145) by Gellius (1.9.1-8).[29] This scheme—with which the philosopher may or may not have agreed[30]—is not attested elsewhere apart from the implicit reference in our epigram, and it differs from other tripartite distinctions within the

25 On the latter, see Zhmud 2012, 408 ('philosophically tinted arithmology'). None of the properties of the decad mentioned in Ps.-Iamb. *Theol.Ar.* 82.10-85.23 = Speusippus fr. 28 Tarán fits Euc. 7 *def.* 23, but it is hardly a coincidence that the number is termed τέλειος because it is the sum of the first four numbers (thus Acerbi 2005, 335). Cf. one of the arithmological features of 28, namely that it is the sum of the first seven numbers (noted by Runia 2001, 276).

26 Reghini 1991, 26 n. 12. On the perfection of numbers 4 and 9, see, respectively, Philo, *De Opif.* 47 and Ps.-Iamb. *Theol. Ar.* 78.16.

27 See the list in Hüffmeier 2001, 14-15, supplemented by Göttling 1851, 280-281 and Burkert 1972, 174 n. 67.

28 Iamb. *VP* 247. On Pythagorean symbolism in Neo-Platonic writings, see Rappe 2000, 117-142, who focuses on geometry.

29 Noted by Zhmud 2012, 185 n. 62; but see already Burkert 1972, 193 n. 6. On Taurus and his works, see now Petrucci 2018, who includes a new collection of texts with English translation.

30 See Petrucci 2018, 24 n. 101.

Pythagorean society in presenting the three categories as successive stages in a continuous education.[31] It is clear, however, that the distinction between the first two classes overlaps with the traditional bipartition between *mathematici* and *acousmatici*[32] and the higher category of the φυσικοί, which represents the ultimate (i.e. philosophical) goal of the Pythagorean education, bears close resemblance with two other classes found in ancient sources:[33] Iamblichus refers once to the θεωρητικοὶ φιλόσοφοι,[34] whereas the σεβαστικοί,[35] namely those concerned with θεωρία, appear alongside the μαθηματικοί and the πολιτικοί (quite possibly a Hellenistic component)[36] in two almost identical passages.[37] These overlapping similarities are important for us because they urge us to consider the relationship between some such classifications in terms of *Quellenforschung*. This has already been done by Delatte who distinguished two groups of sources. I reproduce his stemma here for the reader's convenience:[38]

31 See Lakmann 1995, 19. The same sense of progression does not emerge from *AP* 14.1, where the three categories are arranged in descending order of size: 14 μαθηματικοί, 7 φυσικοί, 4 ἀκουστικοί (respectively, one half, one quarter and one seventh of the total number of disciples). It is little wonder, then, that the last group mentioned comprises 3 women.

32 On which, see more below. The term ἀκουστικός occurs only once more in reference to the Pythagoreans (Iamb. *VP* 163), but there it is used adjectivally (see Zhmud 2012, 185 n. 61).

33 As noted by Delatte 1922, 25.

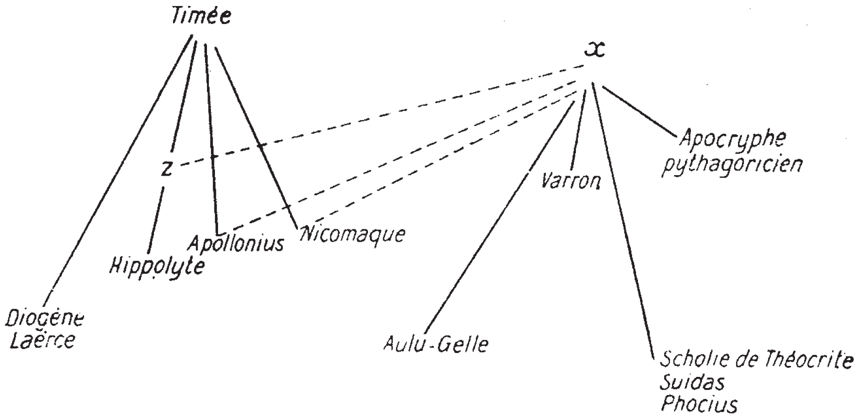
34 Iamb. *VP* 150; cf. 107: τοῖς θεωρητικωτάτοις τῶν φιλοσόφων ('the most contemplative among the philosophers').

35 On the possible meanings of the term, see Delatte 1922, 27.

36 See Dörrie 1990, 262. On the uncertain position of this category, see Burkert 1972, 192 with n. 5; also Zhmud 2012, 174 n. 21, with further references. For a recent discussion of Pythagorean involvement in politics, see Rowett 2014.

37 Anon. Phot. 438b19-23 and Σ Theoc. 14.5b; cf. Suda *s.v.* Πυθαγόρας, which, *pace* Zhmud 2012, 184 n. 59, omits the category of the πολιτικοί. According to Zhmud 2012, 184, the *Life of Pythagoras* transmitted by Anon. Phot. 438b-441b is the first source chronologically to mention such tripartitions. Its dating, however, continues to be controversial, and Zhmud himself seems to waver between the 1st and 2nd centuries AD (2012, respectively pp. 174, 185, 302 n. 56 for the former and 191 n. 86 for the latter). On internal grounds it has been suggested that it cannot date earlier than the mid-2nd century AD (Mejer 1978, 91-92 n. 60). For other, less convincing chronological conjectures (ranging from the 2nd century BC to the 1st century AD), see Burkert 1972, 53 n. 2 and Zhmud 2012, 72 n. 48, the latter of whom, like Dörrie 1990, 262 n. 1, erroneously takes Mejer's dating to coincide with the 2nd century AD. The oldest scholia to Theocritus derive from a composite commentary based largely on the works of Theon of Alexandria and Munatius of Tralles dating to the Augustan period and the 2nd century AD, respectively, and so the scholium may well antedate the testimony of the Anonymus Photii. On the scholia, see the definitive discussion in Wendel 1920; for an informative overview, see Dickie 2007, 63-65.

38 Delatte 1922, 23-26.



The first group on the left-hand side comprises Diogenes,[39] Hippolytus,[40] Apollonius of Tyana and Nicomachus (as preserved in Iamblichus),[41] whereas

39 D.L. 8.10 (= Timae. *FGrHist* 566 F 13b): εἶπέ τε πρῶτος [sc. Πυθαγόρας], ὥς φησι Τίμαιος, κοινὰ τὰ φίλων εἶναι καὶ φιλίαν ἰσότητα. καὶ αὐτοῦ οἱ μαθηταὶ κατετίθεντο τὰς οὐσίας εἰς ἓν ποιούμενοι. πενταετίαν θ' ἡσύχαζον, μόνων τῶν λόγων κατακούοντες καὶ οὐδέπω Πυθαγόραν ὁρῶντες εἰς ὃ δοκιμασθεῖεν· τοὐντεῦθεν δ' ἐγίνοντο τῆς οἰκίας αὐτοῦ καὶ τῆς ὄψεως μετεῖχον ('As Timaeus reports, he [sc. Pythagoras] first said that "the things of friends are common" and "friendship is equality". And his disciples put their possessions into one common store. For five years they kept silence, hearing and obeying [his] individual words and not seeing Pythagoras until they passed [his] test. From then on they were admitted to his house and partook in the sight [of him]').

40 Hippol. *Haer.* 1.2.4: οὗτος [sc. Πυθαγόρας] τοὺς μαθητὰς διεῖλε καὶ τοὺς μὲν ἐσωτερικούς, τοὺς δὲ ἐξωτερικοὺς ἐκάλεσεν ('He [sc. Pythagoras] divided his disciples and called some esoteric, others exoteric'); 1.2.17: οἱ μὲν οὖν ἐσωτερικοὶ ἐκαλοῦντο Πυθαγόρειοι, οἱ δὲ ἕτεροι Πυθαγορισταί ('The esoterics were called Pythagoreans, the exoterics Pythagorists'). The latter association, whose origins date back to the second half of the 4th century BC (see Zhmud 2012, 179-181), is also made (in slightly different terms) by Iamb. *VP* 80: τοὺς μὲν γνησίους εἶναι [Πυθαγόρας] ἐνεστήσατο, τοὺς δὲ ζηλωτὰς τούτων δηλοῦσθαι ἐνομοθέτησε ('[Pythagoras] determined that the former were genuine, but he ordained that the latter should show themselves as imitators of these'). For a tripartite expansion into Πυθαγορικοί, Πυθαγόρειοι and Πυθαγορισταί, namely 'pupils', 'pupils of pupils', and 'outward imitators' (ἔξωθεν ζηλωταί), see Anon. Phot. 438b23-26; Σ Theoc. 14.5b; Suda *s.v.* Πυθαγόρας (Suda's text shows a closer agreement with that of the Anonymus Photii than with that of the scholium).

41 See esp. Iamb. *VP* 72 (from Apollonius): τὰ μὲν ἑκάστου ὑπάρχοντα … ἐκοινοῦντο, διδόμενα τοῖς ἀποδεδειγμένοις εἰς τοῦτο γνωρίμοις, οἵπερ ἐκαλοῦντο πολιτικοί, καὶ οἰκονομικοί τινες καὶ νομοθετικοὶ ὄντες ('the possessions of each … were made common and given to those pupils appointed for this purpose, who were called politicians, some being economists and legislators'); see also the similar passage in *VP* 74 (from Nicomachus), in which mention is made only of the οἰκονομικοί. Delatte 1922, 24-25 bases his views on Rohde 1901, who also noted some correspondences between Iamblichus' accounts of Pythagorean

the second group comprises, in addition to Gellius and the closely connected passages in the Anonymus Photii, Σ. Theocr. 14.5b and Suda *s.v.* Πυθαγόρας (all grouped together), Varro[42] and a Pseudo-Pythagorean treatise in three books (Παιδευτικόν, Πολιτικόν, Φυσικόν),[43] whose general topics may be taken to reflect three different degrees of initiation.[44] Having postulated an intermediate source (*z*) from which Hippol. *Haer*. 1.2.17 derived the association between esoteric and exoteric members and Πυθαγόρειοι and Πυθαγορισταί, and having conjectured the existence of a common source for Apollonius and Nicomachus, Delatte ultimately traced back the first group to Timaeus (4th-3rd centuries BC) and the second group to an unknown source (*x*), which he apparently wished to date slightly later than Timaeus (note that *x* is not aligned with Timaeus but appears in a lower position in the stemma). He also postulated contamination—and probably rightly so—between *x* and, respectively, *z* and Apollonius and Nicomachus.

Delatte's reconstruction has been overlooked, possibly because much remains obscure about these tripartitions and their relationship to the bipartition between *mathematici* and *acousmatici*.[45] I cannot discuss this in detail here. However, it should be noted that while the distinction between two somewhat related groups of sources is (at least to some extent) convincing, the postulation of what is probably a late 4th-century BC source (i.e. *x*) presupposes two things at once: that the tripartition found in Gellius—and, by extension,

food prohibitions (*VP* 106-109, 150) and Nicomachean material. From this he draws the implicit conclusion that not only *VP* 74 but also other passages mentioning particular classes of Pythagoreans (in addition to 107 and 150, cf. 108: τῶν πολιτικῶν τοῖς νομοθέταις) must derive from Nicomachus. The derivation of these passages is, however, less certain (see Rohde 1901, 144, 155). On the subcategories of the οἰκονομικοί and νομοθετικοί/νομοθέται, see Delatte 1922, 28.

42 Varro *ap*. August. *Ord*. 2.20.54: *regendae reipublicae disciplinam suis auditoribus ultimam tradebat* [*Pythagoras*] *iam doctis, iam perfectis, iam sapientibus, iam beatis* ('[Pythagoras] at last transmitted his knowledge of the administration of the state to his disciples [who], by that time, [were] educated, perfect, wise and happy'). Delatte 1922, 26 persuasively interprets the passage as containing a progressive classification (*contra* Lévy 1927, 47), with the *docti* corresponding to the μαθηματικοί and the *perfecti*, *sapientes* and *beati* (taken as a whole) to the three overlapping categories of the σεβαστικοί, θεωρητικοί and φυσικοί.

43 Cited in D.L. 8.6. This early Hellenistic apocryphon is lost except for brief quotations in Diogenes; see Zhmud 2019, 79-81, with further bibliography.

44 Thus Delatte 1922, 26. In this case, too, we see a progressive, ascending pattern (assuming that Diogenes' quotation reflects the original order of the books).

45 The difficulty of correlating the bipartition with the tripartitions has been pointed out by Horky 2013, 4 n. 4.

that of *AP* 14.1 (which was apparently unknown to Delatte)[46]—is secondary not only in importance but also in origin to the bipartition between *mathematici* and *acousmatici*,[47] and that the latter division goes at least as far back as Aristotle. As a matter of fact, the latter view, which was originally put forward by Delatte himself and was later supported and elaborated by Burkert,[48] has been accepted by most subsequent scholars.[49] Zhmud however, has argued rather convincingly that parallels between the brief account of the two main groups given by Porphyry (*VP* 37) and Nicomachean material in Clement of Alexandria, Iamblichus and Porphyry himself suggest that the distinction goes back no earlier than the 1st century AD, and quite possibly to Nicomachus (first half of the 2nd century AD).[50] If he is right, then we can derive a vague *terminus post quem* for Socrates. A *terminus ante quem* is more difficult to establish, partly because we cannot rule out the possibility that Socrates either drew on Taurus via Gellius or may have shared a common source with the philosopher (in which case he might of course have lived earlier than Taurus). Still, Zhmud reminds us that the division into *mathematici* and *acousmatici* is not attested after Iamblichus (*c.* AD 245-325).[51] Although *AP* 14.1 makes reference to a tripartition rather than to a bipartition, and even though none of the three groups is explicitly named, the overlap noted above is significant. Socrates may therefore have lived sometime between the 1st and the early 4th centuries AD, and it is not unreasonable to surmise that he drew on Taurus directly through attendance at his lectures in Athens.[52] Petrucci has recently argued that it is unwarranted to ascribe any peculiar interest in mathematics to Taurus,[53] but this should not prevent us from taking seriously the possibility that Socrates met the philosopher both because we do not actually know how interested he was in the subject either and because lack of specific common interests does not constitute evidence to the contrary.

46 Similarly, note that Delatte's stemma omits Iamblichus as well as the conjectured common source for Apollonius and Nicomachus.

47 Von Fritz 1960, 5 deems it a "spätere Konstruktion". For *all* tripartitions as secondary to the bipartite division, see Burkert 1972, 192-193.

48 Delatte 1915, 273-274; cf. 1922, 27; Burkert 1972, 193-197. As Zhmud 2012, 189 with n. 78 remarks, Burkert later distanced himself from it (1998, 314).

49 Including McKirahan 1994; Kahn 2001; Riedweg 2005; Cornelli 2013; Horky 2013; Huffman 2019.

50 Zhmud 2012, 189-191. It is worth remembering that this distinction occurs first in Clem. Al. *Strom.* 5.9.59, i.e. not before *c.* AD 198.

51 Zhmud 2012, 174.

52 On which, see T12-13, T15 and T17-18 Petrucci.

53 Petrucci 2018, 11-12.

My discussion may raise more questions than it answers. I have attempted to delineate the identity of Socrates the compiler of *AP* 14.1-64 and shown that Carcopino's conjectured dates (late 1st century BC-2nd century AD) are no longer valid. This is so not only because D.L. 2.47 does not help us in finding a *terminus ante quem* but also because the solution of *AP* 14.1, namely the perfect number 28, bears no chronological significance.[54] A new chronological framework (1st-4th centuries AD) has been established on the basis of (1) the correspondence between Socrates' description of the Pythagorean society and Taurus' tripartite scheme and (2) the relationship between such a tripartition and the more important division into *mathematici* and *acousmatici*. Although this new framework is in fact wider than that established by Carcopino, there seems to be good reason to believe that Socrates lived in the mid-2nd century AD. If my argument above is correct, and if we trust the ascription to Socrates of at least the opening epigram of the book, then it is tempting to envisage the poet as a Pythagorising Middle Platonist of Taurus' age. This identification would in effect explain the mixed nature of his collection, which, quite unsurprisingly, he chose to open with an enigmatic hymn to Pythagoras.

By way of conclusion, it should be stressed that my chronological suggestion (and hence also my identification) is possible only if we accept Zhmud's view that the division into *mathematici* and *acousmatici* goes back to the 1st, if not the 2nd century AD. A thorough discussion of Delatte's attempt at *Quellenforschung* certainly falls outside the scope of this article. Nonetheless, as I hope I have made clear, his stemmatic reconstruction would require a more detailed consideration. Here I must limit myself only to a few remarks. The most important of these concerns Apollonius and Nicomachus, who, on Zhmud's view, are unlikely to depend directly on Timaeus unless perhaps we ascribe the introduction of the opposition between *mathematici* and *acousmatici* to Nicomachus himself. The second point to make is that, if Delatte is right in postulating *z*, Apollonius seems to have had access to it because Iamb. *VP* 80, which derives from Apollonius, refers to the same kind of association we find in Hippolytus. Lastly, Gellius—and, by implication, our epigrammatist—cannot depend on *x* unless we either postulate an intermediate source which referred to the *mathematici* and *acousmatici* (whether Nicomachus or some other unknown 1st-century AD source) or suppose further contamination between the two groups of sources.

What was Socrates' relationship with Taurus and philosophy in general? I prefer to leave the question open, in the hope that my discussion will provoke further debate about the ἀριθμητικά and their combination of poetry and

54 *Pace* Kwapisz 2020b, 476.

mathematics. From a thorough, combined study of Socrates' collection and the intricate network of relationships that has emerged from the analysis of the proemial poem we might learn something more about the poet's engagement with the Neo-Pythagorean and Middle Platonic traditions.[55]

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