

Th. 6.355–61      interea cantu Musarum nobile mulcens  
                          concilium citharaeque manus insertus Apollo  
                          Parnasi summo spectabat ab aethere terras  
                          .....  
                          orsa deum, nam saepe Iouem Phlegramque suique  
                          anguis opus fratrumque pius cantarat honores.  
                          tunc aperit quis fulmen agat, quis sidera ducat  
                          spiritus, unde animi fluuiis, quae pabula uentis . . .

Housman<sup>11</sup> pointed out the absurdity of taking *orsa deum* in apposition to *quis fulmen agat* etc. because even if the former phrase could mean ‘the deeds of the gods’ (Mozley)—which it may not—it makes nonsense to suppose that these are to be identified with the causes of natural phenomena. His solution was to posit a lacuna of one verse after 357 and fill it notionally with *caelicolum meritas non longa sonantia laudes*. Hill adopts this idea of a lacuna in spite of the generous but trenchant criticism of Housman by R. Helm.<sup>12</sup>

*orsa* here may not have lost sight of its participial origin and the meaning of *ordior* (cf. Th. 2.420 *si . . . orsa tulisses* ~ 423 *inciperes*): ‘his beginnings’; *deum* would belong to the type of objective genitive with which Statius achieves some compressed phrases,<sup>13</sup> and *sunt* is to be supplied: ‘his preludes are about the gods’, for he had these already prepared, having often celebrated one or other of them. Then (360) he begins the new section *de rerum natura*. No lacuna needs to be posited, but repunctuation is required.

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<sup>11</sup> CQ 27 (1933), 9–10 = *Classical Papers* 1206–7.

<sup>12</sup> *Lustrum* 1 (1956), 285–6: ‘Allein hier ist dem scharfsinnigen Gelehrten nicht gelungen, zu überzeugen. Der Ausdruck *non carmen deo erat* ist an sich unbefriedigend, und das dann folgende *tunc aperit* schliesst sich nicht gut an.’

<sup>13</sup> Statius offers some bold examples of this usage: Th. 1.230 *errores . . . nemorum* ‘wanderings in the glades’; Th. 1.230–1 *deorum . . . crimina* ‘crimes against the gods’; Th. 5.717 *nuntius . . . prolis* ‘news about his offspring’; Th. 11.251 *post exulis otia tauri* ‘after the leisure afforded to others by the bull’s exile’.

## THE CHRONOLOGY OF NICOMACHUS OF GERASA

The relative and absolute chronology of Middle Platonic philosophy is often uncertain, causing problems in connecting a philosopher either to other philosophers or to the surrounding culture.

John Dillon<sup>1</sup> attempted to date the philosopher and Neopythagorean Nicomachus of Gerasa by reference to the later philosopher Proclus. Proclus was born in 412 and claimed to be the reincarnation of Nicomachus.<sup>2</sup> In the *Theologumena Arithmeticae*,<sup>3</sup> wrongly attributed to Iamblichus, 216 years is given as the period between

<sup>1</sup> J. Dillon, ‘A date for the death of Nicomachus of Gerasa?’, *CR* n.s. 19 (1969), 274–5, reprinted in J. Dillon, *The Golden Chain*, XV (Variorum, 1990).

<sup>2</sup> ‘He (Proclus) was convinced that he belonged to the Hermetic tradition and he believed according to a dream he once had that he possessed the soul of the Pythagorean philosopher Nicomachus.’ ‘Life of Proclus’ by Marinus ch. 28 (translated by L. J. Rosan in his *The Philosophy of Proclus*, 1949). In ch. 35 a horoscope for Proclus is given which dates his birth as February 18, 412.

<sup>3</sup> Text, V. de Falco (Leipzig, 1922), translation by R. Waterfield, *The Theology of Arithmetic* (Grand Rapids, MI, 1988).

reincarnations. 'Since the cube of 6 is 216, the period pertaining to seven month offspring, when to the seven months are added the six days in which the seed froths up and germinates, then Androcydes the Pythagorean, who wrote "On the Maxims", Eubulides the Pythagorean, Aristoxenus, Hippobotus and Neanthes, who all recorded Pythagoras' deeds, said that the transmigrations of souls which he underwent occurred at 216 year intervals, that after this many years at all events he came to reincarnation as Pythagoras, as it were after the first cycle and return of the soul generating cube of six (and this number is in fact recurrent because of being spherical) and that he was born at other times after these intervals.' If one regards this as the period between death and birth (rather than birth and birth, as the passage could also be interpreted), then Nicomachus would have died in 196.

This date appears to be too late.<sup>4</sup> Apuleius translated the *Introductio Arithmetica* of Nicomachus into Latin probably at some time in the third quarter of the second century, and there are no references in Nicomachus to Ptolemy or Theon of Smyrna, who were active mostly in the second quarter of the second century (except for one mention of Ptolemy in the *Excerpta ex Nicomacho* 4 which may be a gloss by the excerptor). Also there are reasons to identify the lady to whom Nicomachus dedicated the *Enchiridion* with Plotina the wife of the Emperor Trajan.<sup>5</sup> The evidence is circumstantial but cumulative: the lady appears to be a member of the imperial family, but one who did not expect ostentatious salutation, she is a wide traveller with knowledge of the East and an interest in Greek philosophy. All of this applies to Plotina. Nicomachus, on the other hand, quotes Thrasyllus and is thus later than the Emperor Tiberius, and he is not alluded to or quoted by any surviving writer until well into the second century. For these reasons Nicomachus is generally regarded as active sometime in the first half of the second century, although dates up to half a century earlier are possible.<sup>6</sup>

The problem remains as to why Proclus should choose Nicomachus as his last incarnation given a number of other plausible candidates (Plutarch, Numenius, Ammonius Saccas, etc.). The basis for the period of 216 years comes from an analogy between embryology and metempsychosis, which starts from the 210 days duration of development of the seven month embryo, and adds 6 days between fertilization and implantation to arrive at the numerologically significant number 216 ( $6 \times 6 \times 6$ , or the cube of the Hexad). This period of development of 216 days for a seven month embryo is then used to imply a 216 year period for reincarnation.<sup>7</sup>

The Greek medical tradition held that live births could occur at seven months' development or nine months' development, but not in between. These views appear to be based on number mysticism rather than empirical evidence but were a generally accepted part of Greek medical science.<sup>8</sup> The seven month embryo provides a basis for reincarnation at 210 or 216 years, with 216 numerologically preferable. The nine month embryo, however, provides a basis for reincarnation at 270 years.

On the basis of the type of numerological ideas found in the *Theologumena*

<sup>4</sup> L. Taran, 'Nicomachus of Gerasa', *Dictionary of Scientific Biography* (1974), p. 113, n. 1.

<sup>5</sup> F. R. Levin, *Harmonics of Nicomachus and the Pythagorean Tradition* (Pennsylvania, 1975); W. C. McDermott, 'Plotina Augusta and Nicomachus of Gerasa', *Historia* 26 (1977), 192–203.

<sup>6</sup> Nicomachus of Gerasa, *Introduction to Arithmetic*, translated with introduction by M. L. D'Ooge et al. (New York, 1926).

<sup>7</sup> *Theologumena Arithmeticae*, pp. 52–3, translation by R. Waterfield, *The Theology of Arithmetic* (Grand Rapids, MI, 1988).

<sup>8</sup> See the Hippocratic or pseudo-Hippocratic works, *Peri hebdomadon*, *Peri eptamenou*, and *Peri oktamenou*.

*Arithmeticae*, and other ancient sources, numbers significant for reincarnation should be solid numbers (i.e. with three factors), with all three factors within the Decad, or first ten numbers. From the analogy with embryology the period should be approximately  $7 \times 30$  or  $9 \times 30$ , it must be divisible exactly by 6, the number of the soul, and when divided by 6 must give a numerologically significant result.

There are only three candidates, 210 or  $6 \times 5 \times 7$ , 216 or  $6 \times 6 \times 6$ , and 270 or  $6 \times 5 \times 9$ . (43, 44, 46, and 47 have little numerological significance and similarly for the numbers close to 35 and 36.) 270 years before the birth of Proclus gives 142 for the death of Nicomachus, which agrees very nicely with our other evidence.

216 is undoubtedly a more significant number for Pythagoreans than 270, and the question arises as to why Proclus should choose 270 rather than 216 or 210 when determining his previous incarnation. However, he may have had no choice. The number of plausible candidates whose dates of birth and/or death were known to Proclus may not have exceeded single figures, and he would have been unlikely to find a match without considering several periods for reincarnation, i.e. he knew of the death of a plausible candidate in 142, but he was not aware of any relevant event occurring in 196 or 202.

Are the dates of Nicomachus' career particularly important? There are reasons to think so. We find in Nicomachus<sup>9</sup> our first evidence for that combination of the Planetary Gods, the music of the spheres, and the seven Greek vowels which underlies the ascension rituals of the Gnostic treatises 'Marsanes' and 'Zostrianos' and the Hermetic treatise 'The Discourse of the Eighth and Ninth', all from Nag Hammadi,<sup>10</sup> the so-called Mithras liturgy,<sup>11</sup> and the mystical practices of the Marcosians, according to Irenaeus.<sup>12</sup> These practices are referred to contemptuously by Plotinus<sup>13</sup> in his great treatise, 'Against the Gnostics'.

Vowels were undoubtedly used in mystical, magical, and ritual contexts, along with other strange and barbarous names, before the time of Nicomachus,<sup>14</sup> but they later acquire a new significance and prominence, not only in mystical ritual but also in more mundane magic.<sup>15</sup>

<sup>9</sup> *Excerpta ex Nicomacho*, p. 6, 'For indeed the sounds of each sphere of the seven each sphere naturally producing one certain kind of sound are called vowels. They are ineffable in and of themselves but are recalled by the wise with respect to everything made up of them. Wherefore also here this sound has power which in arithmetic is a monad in geometry a point in grammar a letter. And combined with the material letters which are the consonants as the soul to the body and the musical scale to the strings—the one producing living beings the other pitch and melody—they accomplish active and mystic powers of divine beings. [Wherefore when especially the theurgists are worshipping such they invoke it symbolically with hissing sounds and clucking with inarticulate and foreign sounds]' (extract translated by B. A. Pearson, passage in square brackets may be a gloss by the excerptor), and less explicitly in the Nicomachean section of the *Theologumena Arithmeticae* respecting the number Seven.

<sup>10</sup> J. M. Robinson (ed.), *The Nag Hammadi Library in English* (Leiden, 3rd edn, 1988).

<sup>11</sup> *PGM* IV, 675–834.

<sup>12</sup> Irenaeus, *Adversus Haereses*, bk. 1, ch. 14.

<sup>13</sup> 'But they themselves most of all impair the inviolate purity of the higher powers in another way too. For when they write magic chants intending to address them to those powers, not only to the soul but to those above it as well, what are they doing except making the powers obey the word and follow the lead of people who say spells and charms and conjurations, any one of us who is well skilled in the art of saying precisely the right things in the right way, songs and cries and aspirated and hissing sounds and everything else which their writings say has magic power in the higher world? But even if they do not want to say this how are the incorporeal beings affected by sounds?' Plotinus, *Enneads*, II.9.14, translated by A. H. Armstrong.

<sup>14</sup> See C. Bonner, *Studies in Magical Amulets chiefly Graeco-Egyptian* (Ann Arbor, 1950), pp. 186–7.

<sup>15</sup> F. Dornseiff, *Das Alphabet in Mystik und Magie* (Leipzig, 2nd edn, 1925).

If the traditions underlying such works as 'Marsanes' and the Mithras liturgy depend upon post-Nicomachean magical and mystical practices, this has significance as a *terminus post quem* for these traditions, a significance that becomes more important the later the dates of Nicomachus' career.

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### PHILOPONUS, DIODORUS, AND POSSIBILITY

Here, according to the standard text of Philoponus, is how Diodorus and Philo defined the possible:

Διόδωρος δὲ ἄλλα τινὰ τοῦ δυνατοῦ σημαίνοντα εἶναι φησι· φησὶ γὰρ δυνατόν εἶναι ἢ τὸ ἐκβεβηκὸς ἤδη, ὅπερ φησὶν ἡμεῖς ὑπάρχον, ἢ τὸ δυνάμενον ἐκβῆναι μήπω δὲ ἐκβεβηκός. ὁ δὲ Φίλων φησὶ δυνατόν εἶναι ἢ τὸ ἐκβεβηκὸς ἢ τὸ δυνάμενον ἐκβῆναι μηδέποτε δὲ ἐκβαῖνον, ὥστε λέγομεν αἰσθητὸν εἶναι τὸ ἐν τῷ βυθῷ ὄστρακον.<sup>1</sup>

I conjecture that instead of the first *δυνάμενον*, we should read *μέλλον*.

The definition here ascribed to Philo is entirely in line with what we know of Philo from elsewhere: Alex. Aphr. in *APr.* 184.6–10; Simp. in *Cat.* 195.33–196.5; Boethius, in *de Int.* 234.10–15. The same is not true of the definition here ascribed to Diodorus. For Diodorus, we are told elsewhere, defined the possible as that which either is or will be so: Cic. *Fat.* 13, 17; Plu. *de Stoic. rep.* 1055d–e; Alex. Aphr. in *APr.* 183.42–184.5; Boethius, in *de Int.* 234.22–4, 412.16–7. Something has therefore got garbled.

The garbling may be the fault, not of Philoponus or his source, but of his scribes. We know that the repeated *ἐκβῆναι* led to corruption in one manuscript: B omits everything from *μήπω* to the second *ἐκβῆναι*, and thus has Diodorus define the possible in Philonian style as *ἢ τὸ ἐκβεβηκὸς ἤδη . . . ἢ τὸ δυνάμενον ἐκβῆναι μηδέποτε δὲ ἐκβαῖνον*. I suggest that the repeated *ἐκβῆναι* led to another corruption, which has affected all manuscripts: it led to the replacement of a *μέλλον*, which by rights belonged before the first *ἐκβῆναι*, with a *δυνάμενον* which by rights belonged only before the second. At any rate, the definition here ascribed to Diodorus can be ungarbled if we replace its *δυνάμενον* by *μέλλον*. This will have him define the possible as *ἢ τὸ ἐκβεβηκὸς ἤδη . . . ἢ τὸ μέλλον ἐκβῆναι μήπω δὲ ἐκβεβηκός*. And that definition will be the one familiar from the other sources.<sup>2</sup>

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<sup>1</sup> Philp. in *APr.* 169.17–21. This is fr. 136 in the collection of K. Döring, *Die Megariker* (Amsterdam, 1972); and part of fr. II F 27 in the collection of G. Giannantoni, *Socratis et Socraticorum Reliquiae* (Naples, 1990). Both Döring, pp. 39–43, and Giannantoni, i.429–33, reprint all the other passages here cited.

<sup>2</sup> I am grateful to Neil Hopkinson for helpful advice.