

Pythagorean Immortality of the Soul?

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2.1 Introduction

It is agreed by most scholars of Presocratic philosophy that we can ascribe few doctrines to all early Pythagoreans, but that the ones we can identify with some confidence concern the status of the soul. In particular, scholars as diverse as Charles Kahn, Christoph Riedweg, John Palmer, and David Sedley have ascribed to Pythagoras the claims that the soul lives on eternally, beyond death, and that after death it moves into the bodies of other animals: hence, early Pythagorean psychological doctrines are marked by (a) the *immortality* of the soul¹ and (b) its capacity to *transmigrate* into other bodies, also known as metempsychosis or reincarnation.² Such claims are accepted despite the fact that the Pythagorean *acusmata* (sayings) or *symbola*

Thanks especially to George Gazis, Alex Long, and Christoph Riedweg for discussions of this chapter. What is written here of course does not necessarily reflect their views on early Pythagorean psychology. In what follows, all translations are mine unless indicated otherwise. This chapter is dedicated to the enduring memory of Walter Burkert (1931–2015).

¹ By ‘immortality of the soul’, I refer to the *everlastingness* of the soul. Other versions of immortality are explored in this volume.

² Kahn 2001: 3–4, 11; Riedweg 2008: 62–3; Palmer 2014: 211–12. Sedley asserts: ‘that the soul is immortal, and transmigrates, was the most famous of all Pythagorean doctrines’, although he goes on to qualify this claim by saying that ‘the doctrine of the soul’s immortality is more Platonic property than Pythagorean’ (Sedley and Long 2010: xxiii). Similarly, Palmer notes (2014: 212) that ‘in the end there is little evidence indicating that the early Pythagoreans consider what the soul would have to be to experience the transmigration taught by Pythagoras’. Huffman is not so decisive. He takes it as assumed that there is an early ‘Pythagorean theory of transmigration’ (2009: 22), which he applies to both Pythagoras and Philolaus, despite the fact that no ancient evidence attests to this theory for the latter figure. On the immortality of the soul, however, Huffman says little, noting only that it might have been one of the ‘religious topics which Pythagoras discussed’ (2009: 37 n. 46). A strong commitment to Pythagorean immortality of the soul can be found in Casadesús Bordoy 2013: 161–4, who generally takes his sources at face value. He claims that Pythagoras learned about the immortality of the soul from Pherecydes, on the evidence of Cicero (*Tusculan Disputations* 1.16.38). But Casadesús Bordoy does not trace Cicero’s source here, which indeed might be Dicaearchus (cf. *Tusc.* 1.10.21). Pohlenz (1949, vol. 2: 115), who is often cited as the authority to establish Posidonius as the source for Cicero’s description (e.g. Schibli 1990: 104), simply asserts that Posidonius is the source, without any demonstration. At any rate, it is clear that Cicero’s source, whoever he was, has Plato Pythagoreanize (cf. *Tusc.* 1.17.39). Cornelli (2016) tracks the Pythagorean theory of transmigration, but he assumes the antiquity of the theory of the immortal soul.

(symbols), the so-called bedrock of early Pythagoreanism, never explicitly mention the alleged doctrine of psychic transmigration, nor yet define or describe the soul as immortal.³

To be sure, independent evidence from Pythagoras' near-contemporary Xenophanes of Colophon (*fl.* late fifth century BCE) suggests the likelihood that the Pythagoreans believed in transmigration of the soul: we will recall that, when Pythagoras passed by someone beating a puppy, the sage exclaimed, “Stop! Don't beat it; for surely it is the soul of a dear man / Which I recognized when I heard it howling (ἦ φίλου ἀνέρος ἐστί / ψυχὴ, τὴν ἔγνων φθεγξαμένης αἰών)”⁴ Most scholars would agree that this does indeed refer to some theory of transmigration.⁵ But even if this fragment does confirm the transmigration of the soul from human to dog (no doubt with tongue in cheek), does it imply any theory of the *immortality* of the soul, or are there alternative interpretations available to us?⁶

At this point, it is worth bringing in the only Pythagorean *acusma* that refers, in any way, to souls: ‘abstain from [killing/injuring/eating?] ensouled beings’ (ἐμψύχων ἀπέχου).⁷ This *acusma* is first attested in the fragments of the fourth-century BCE astronomer and philosopher Eudoxus of Cnidus, who himself studied with the fourth-century BCE Pythagorean philosopher Archytas of Tarentum. Eudoxus' explanation of the *acusma*, preserved and probably embellished by Iamblichus, is: ‘There is a congenital partnership of living beings, since, through sharing life and the same

³ To be sure, Huffman (2009: 36) refers to ‘two clear references’ to the *acusmata* that relate to the soul: the first, ἐμψύχων ἀπέχου, is treated below as an original *acusma* (for the translation and my own interpretation, see the text to n.8 below); the second, from Iamblichus (VP 85), originally derived from Aristotle's lost works on the Pythagoreans, states ‘the only animals into which a human *psychē* does not enter are those which it is lawful to sacrifice’ (trans. Huffman). However, it is unlikely that the second passage as a whole constitutes an *acusma* – it is not included by Burkert, who instead formulates its content as ‘eat only the flesh of animals that may be sacrificed’ (1972: 172). It would appear to be a summary on the part of Aristotle (or Iamblichus) of a number of *acusmata* that stipulated various things which it is not lawful to eat (e.g. brains, beans, sacred fish). Even if the passage is to be admitted as altered evidence for an original *acusma*, it would appear only to testify to transmigration of the soul, not to its immortality. On the *acusmata* generally, now see Thom 2020.

⁴ Xenophanes DK 21 B7 = Diogenes Laertius 8.36 = Pythagoras P32 + Xenophanes D64 Laks & Most.

⁵ See, for example, Schäfer's discussion (2009) of the various ways in which the fragment has been interpreted by scholars. More recently, Lloyd's interpretation (2014: 28) is circumspect, claiming that *if* the evidence from Xenophanes referred to Pythagoras, ‘this *would* count as the earliest extant Greek evidence for his belief in the transmigration of souls, also ascribed, though on the testimony of much later writers, to the legendary figure of Orpheus’ (italics mine). Even the evidence concerning the Pythagorean–Orphic connections has recently been impressively challenged (in Betegh 2014).

⁶ It is clear that Heraclides of Pontus, on Diogenes Laertius' account (Fr. 86 Schütrumpf = Diogenes Laertius 8.4–5 = Pythagoras a P37 Laks & Most), ascribed to Pythagoras transmigration through multiple lives. He was followed by Porphyry (VP 45 = Pythagoras a P38 Laks & Most).

⁷ Cf. Iamblichus *Protr.* 21, p. 108.15 Pistelli and n.4 in this chapter. For Eudoxus as student of Archytas, see Diogenes Laertius 8.86 = Archytas P13 Laks & Most.

elements and the mixture arising from these, they are yoked together with us by brotherhood, as it were.⁸ Hence, for Eudoxus, Pythagoras recommends abstention from animals on the grounds that the partnership of living beings requires that justice obtain between kindred members, whether human or (non-human) animal. Transmigration might be implied by Xenophanes' account, but it is not clear that it influenced Eudoxus' interpretation of the Pythagorean *acusma*.⁹ And, perhaps most importantly for my argument, it is not obvious that we are required to infer Pythagorean immortality of the soul on the early evidence of Xenophanes or Eudoxus.¹⁰ Indeed, it is important to keep in mind that transmigration of the soul need not imply immortality of the soul, and vice versa.¹¹

In this contribution to a volume on immortality of the soul, I would like to apply a strong type of historiographical scepticism to the most important

⁸ Iamblichus *VP* 108 = DK 31 A 135 (not in Laks & Most; trans. after Dillon and Hershbell): ἤδη δὲ καὶ τῶν πολιτικῶν τοῖς νομοθέταις προσέταξεν ἀπέχεσθαι τῶν ἐμψύχων. ἅτε γὰρ βουλομένους ἄκρως δικαιοπραγεῖν ἔδει δῆπου μὴδὲν ἀδικεῖν τῶν συγγενῶν ζώων. ἐπεὶ πῶς ἂν ἔπεισαν δίκαια πράττειν τοὺς ἄλλους αὐτοὶ ἀλίσκόμενοι ἐν πλεονεξίᾳ; συγγενικὴ δ' ἡ τῶν ζώων μετοχή, ἅπερ διὰ τὴν τῆς ζωῆς καὶ τῶν στοιχείων τῶν αὐτῶν κοινωνίαν καὶ τῆς ἀπὸ τούτων συνισταμένης συγκράσεως ὥσανεῖ ἀδελφότητι πρὸς ἡμᾶς συνέζευκται. Compare with Eudoxus Fr. 325 Lasserre (= Porphyry *VP* 7; not in Laks & Most): 'Moreover, Eudoxus, in the seventh book of his *Description of the Earth*, writes that Pythagoras practiced purity and abhorrence from all murder and murderers, to such an extent that he not only abstained from [killing? eating? beating?] animals, but also held himself apart from butchers and hunters' (πλὴν τοσαύτη γὰρ ἀγνεία φησὶν Εὐδόξος ἐν τῇ ἑβδόμῃ τῆς Γ' ἡς Περιόδου κεχρησθαι καὶ τῇ περὶ τοῦς φόνους φυγῇ καὶ τῶν φονεούντων, ὥς μὴ μόνον τῶν ἐμψύχων ἀπέχεσθαι, ἀλλὰ καὶ μαγείροις καὶ θηράτορσι μὴδέποτε πλησιάζειν). On Eudoxus' response to this *acusma*, see also Horky 2020: 185–6.

⁹ Herodotus associates certain religious practices with the Egyptians and Pythagoreans (2.81.2), but not transmigration. He does associate transmigration with the Egyptians at 2.123.3, but does not explicitly mention Pythagoras there (for example, Laks & Most at Pythagoras c D4–5 cautiously note that 'any attribution to Pythagoras himself is uncertain' and that this passage could be referring to Empedocles). Herodotus (4.94–6) mentions the immortal soul theory of the Getae in relation to a divine Salmoxis, although he then counters this by presenting another account involving the human Salmoxis as Pythagoras' slave; we need not, however, tie the two stories together (as many scholars do; see, e.g., Zhmud 2016: 446–51, with bibliography; more cautious is Tauber 2008: 142–4), and Herodotus did not believe either story. On the above evidence and its bearing on transmigration, see Lloyd 2014: 30 and Pellò 2018: 139–40.

¹⁰ Zhmud (2014: 101) notes that 'Alcmaeon [of Croton] was the sole Pythagorean philosopher to teach the immortality of the soul', based on evidence from Aristotle's *De anima* (A 2, 405a29–b1 = DK 24 A 12 = D9 Laks & Most), where it is clear that Alcmaeon believed that the soul is immortal because it resembles immortal objects such as celestial beings, which are always in circular motion. But there are doubts about whether Alcmaeon was a Pythagorean at all, on which see Huffman 2003. Aristotle does not present him as a Pythagorean, claiming that Alcmaeon 'appears to have made assumptions [concerning pairs of principles] in the same way [as the "others" from the Pythagorean community], and either he derived the notion from them or they from him' (*Metaphysics* A 5, 986a27–9 = DK 24 A 3 = D5 Laks & Most).

¹¹ For example, Alcmaeon (mentioned in the previous note) may have been committed to something like an 'astral body' theory of the soul, but there is no hint of transmigration from body to body in his psychology.

evidence concerning the early Pythagorean theory or theories of the soul, in order to assess whether we can actually say anything firm about their views on the issue of the soul's immortality. In doing so, I will be investigating chiefly the fourth-century BCE evidence that scholars have used to draw up a picture of the Pythagorean soul. That evidence is substantially derived from two figures in the mid- to late fourth century BCE: Aristotle and his student Dicaearchus of Messana. My argument will proceed in three stages. First, I will assess the single most important piece of doxographical evidence concerning Pythagorean immortality of the soul and metempsychosis, which is found in a fragment of Dicaearchus' lost work *On Lives*, and demonstrate that all so-called Pythagorean doctrines there are ultimately Platonic in origin. Second, I discuss the evidence in Aristotle's *De anima* that has been thought to point to Pythagorean metempsychosis and show that it is chiefly derived from arguments advanced by a character named Cebes of Thebes in Plato's dialogue on the soul, *Phaedo*. Finally, I will turn to what I take to be the most important evidence concerning early Pythagorean theories of the soul, also preserved in Aristotle's *De anima*. I will argue that the Pythagorean theory of the soul is best elucidated by comparison with the philosophical views of the 'mathematical' Pythagoreans Hippasus of Metapontum, Archytas of Tarentum, and Ecphantus of Syracuse, in the context of the psychological atomism of Democritus. My proposal will be that the Pythagorean soul had three salient features: like the soul in Democritus' philosophy, the Pythagorean soul was atomic, material, and perishable. Importantly, I hope to show that there is absolutely no good evidence that Pythagoras, or early Pythagoreans, was committed to, much less proved, the immortality of the soul. However, it does appear to me that the Pythagoreans advocated a theory of the transmigration of the soul, in line with the psychological theories of figures associated with 'mathematical' Pythagoreanism, such as Empedocles. And finally, even if the Pythagoreans' soul is indeed atomic, material, and perishable, this does not exclude and indeed is perfectly consistent with a transmigratory theory.

2.2 Dicaearchus' Account of the Pythagorean Soul: Pythagorean or Platonic?

The most important evidence adduced by scholars for the Pythagorean theory of the soul comes from Porphyry's *Life of Pythagoras* (late third century CE), where the Neoplatonist is apparently quoting, or at least summarizing, a portion of the Peripatetic Dicaearchus of Messana's work *On Lives*, a work not of biography *simpliciter*, but of various 'ways of life' to

which a philosopher could avail herself, by reference to historical figures such as Pythagoras, Socrates, and Plato.¹² Here, we see a cluster of philosophical beliefs about the soul juxtaposed in the context of Pythagorean exoterism. After Dicaearchus discusses the kinds of rhetorical display that Pythagoras made to diverse groups of Crotonians (elders, children, and then women), he illustrates Pythagoras' subsequent fame in these terms:

γενομένων δὲ τούτων μεγάλη περὶ αὐτὸν ἠύξηθη δόξα, καὶ πολλοὺς μὲν ἔλαβεν ἐξ αὐτῆς τῆς πόλεως ὁμιλητάς οὐ μόνον ἄνδρας ἀλλὰ καὶ γυναῖκας ὦν μιᾶς Θεανοῦς καὶ διεβοήθη τοῦνομα, πολλοὺς δ' ἀπὸ τῆς σύνεγγυς βαρβάρου χώρας βασιλεῖς τε καὶ δυνάστας. ἃ μὲν οὖν ἔλεγε τοῖς συνοῦσιν οὐδὲ εἷς ἔχει φράσαι βεβαίως· καὶ γὰρ οὐδ' ἡ τυχοῦσα ἦν παρ' αὐτοῖς σιωπῇ. μάλιστα μέντοι γνώριμα παρὰ πᾶσιν ἐγένετο πρῶτον μὲν ὡς ἀθάνατον εἶναι φησι τὴν ψυχὴν, εἴτα μεταβάλλουσιν εἰς ἄλλα γένη ζώων, πρὸς δὲ τούτοις ὅτι κατὰ περιόδους τινὰς τὰ γενόμενά ποτε πάλιν γίνονται, νέον δ' οὐδὲν ἀπλῶς ἔστι, καὶ ὅτι πάντα τὰ γινόμενα ἔμψυχα ὁμογενῇ δεῖ νομίζειν. φαίνεται¹³ γὰρ εἰς τὴν Ἑλλάδα τὰ δόγματα πρῶτος κομίσαι ταῦτα Πυθαγόρας.

After these things happened, his fame grew great, and he won over many followers, on the one hand, from his own city – not only men, but also women, one of which, Theano, made a name for herself – and many kings and rulers, on the other hand, from the neighboring non-Greek lands. Well then, what things he said to those who kept his company not even one person is able to say for certain; for the silence kept among them was not ordinary. Nonetheless, the following became especially well known among all people: first, he says (1) of the soul that it is immortal; second, that (2) it changes into other kinds of animals; additionally, that (3) things that at some point have come-into-being come-to-be again according to certain cycles, and that, in short, nothing is new; and that (4) one ought to believe that all animate things that have come-to-be are of the same kind. For Pythagoras appears to have been the first to introduce these doctrines into Greece. (Dicaearchus Fr. 41a Mirhady = FGGrHist 1400 Fr. 56 = Porphyry, *Life of Pythagoras* 19 = Pythagoras D5 Laks & Most)

This passage, which Constantinos Macris has rightly referred to as 'so remarkable for its precision and concision that it is worth quoting in full', has raised numerous puzzles for scholars.¹⁴ First and foremost is the question of attribution: scholars have lined up on either side of the fence,

¹² There is no reliable complete translation of this work in English, but portions that are relevant to Pythagoras and the Pythagoreans can be consulted in English translation in Laks and Most's *Early Greek Philosophy: Western Greek Thinkers* (2016: vol. 4, part 1). On Dicaearchus' *On Lives*, see White 2001 (esp. pp. 197–8).

¹³ I follow Laks & Most in reading φαίνεται with the Mss. In the 1886 Teubner, Nauck emended to φέρεται, which would render 'Pythagoras is reported to have been ...'.

¹⁴ Macris 2014: 395–6.

with sceptics such as Wehrli and Zhmud rejecting attribution to Dicaearchus on the grounds that it bears the specific hallmarks of Porphyrian exegesis, and more optimistic scholars such as Mirhady and Huffman affirming it as genuine Dicaearchus.¹⁵ I am less concerned about whether the passage is chiefly constituted of Dicaearchus' original material or Porphyry's embellishment; for the sake of my argument, I will assume the positive case that Huffman and Mirhady are right, and that at least *some* portion (although perhaps not all) of this passage originated in Dicaearchus' *On Lives*, and hence that it can be admitted to the discussion of early Peripatetic descriptions of Pythagorean 'doctrines' of the soul. For the most negative case would conclude that much, most, or all of the evidence for the early Pythagorean theory of soul preserved here is simply Neoplatonic interpolation, and that the passage cannot be used in any straightforward way as evidence for fourth-century BCE interpretation of Pythagoreanism.

If we accept the positive case, as outlined above, the first order of business will be to assess the content for its possible historical and philosophical value to our discussion. Let us proceed as follows. First: what can Dicaearchus' account tell us about Pythagoreanism, as it was popularly conceived of (μάλιστα γνώριμα παρὰ πᾶσιν) in the late fourth century BCE? Dicaearchus says that it was marked by four tenets, which may or may not have been related: that (1) the soul is immortal; that (2) the soul changes into other genera of animals; that (3) things subject to becoming do in fact come-to-be again according to particular cycles – probably heavenly cycles – and, consequently, nothing is new; and that (4) it is a moral injunction to believe that all things that are subject to becoming *and* ensouled are of the same or a similar kind.¹⁶ Now anyone evaluating doxographical accounts of Pythagoreanism is forced to deal with the challenge of extracting from the account what is historically early 'Pythagorean' from what is 'Pythagorean' as informed by Platonism – whether that means the Platonism of the Early Academy, Middle Platonism, or Neoplatonism. Let us examine each tenet to see whether it can, in any unproblematic way, be extracted from any possible Platonist substrate.

¹⁵ Huffman (2014b: 282 n. 8) justifies his claim by saying that 'there is no break in the train of thought between sections 18 and 19, and Porphyry does not cite a new source until the beginning of 20'; and second, 'the circumspect tone about the doctrines of Pythagoras in Section 19 is much more plausible for Dicaearchus in the fourth century than for any other author in the later tradition'.

¹⁶ Note the format of the expression (πάντα τὰ γινόμενα ἑμψυχα ὁμογενῇ δεῖ νομίζειν), which features δεῖ plus infinitive, like those *acusmata* classified under τί δεῖ πράττειν in Aristotle's account (*ap. Iambl. VP* 82).

- (1) 'The soul is immortal.' This is a core Platonic notion in the middle and late dialogues. Elaborate arguments concerning this tenet appear no less than seven times in Plato's works, with 'proofs' of immortality in several circumstances: in the *Meno*, a short argument from recollection grounds the immortality of the soul at 85e–86b; in the *Phaedo*, we have the 'cyclical' argument at 70c–72e, attributed to an 'ancient account' at 70c, which shows in the end that the souls of the living are generated from the dead; the argument from 'recollection' at 72e–77a, which shows that our souls preexisted us; the 'affinity' argument at 78b–84b, which shows that the soul is most like the divine, which is immortal, intelligible, uniform, and indissoluble (esp. 80a–b), and that the kind of soul that is nurtured by reason eventually arrives at what is most akin (τὸ συγγενές) to itself (84a–b); and in the 'final' argument at 102b–107b, in which it is proved that the soul is not only immortal, but also indestructible; to that list we can add the proof of the immortality of the soul at *Republic* X, 608c–611a. Finally, there is the argument that arises out of these claims, in the *Phaedrus* (245c–246a), which starts from the assertion that 'all soul is immortal' and proceeds from there to discuss how its immortality plays out in the sequences of psychic incarnations, as in *Republic* X (614b–621d).¹⁷
- (2) 'The soul changes into other genera of animals.' One may detect implicit references to metempsychosis in the 'cyclical' argument at *Phaedo* 72d.¹⁸ In *Meno* 81b–d, Socrates associates the argument that the human soul is immortal – 'coming to an end and being born again' (καὶ τοτὲ μὲν τελευτᾶν . . . τοτὲ δὲ πάλιν γίγνεσθαι) but never destroyed – with the anonymous priests and priestesses who 'attempt to be able to give an account' of it, as well as Pindar (whose Persephone fragment is quoted) and some of the divine poets. The discussion here concludes with a second axiomatic claim, that 'all nature is akin' (τῆς φύσεως ἀπάσης συγγενοῦς οὐσης). Again, we see that in *Republic* X and *Phaedrus* there is a focus on how the soul's condition when incarnate is influenced by the bodily matter it clothes itself in, and how this leads to multiple incarnations. In *Republic* X, there is not much discussion of the mechanics of transmigration beyond the general claim that all sorts of mixtures occurred, including souls of animals becoming human (620d). The *Phaedrus*

¹⁷ Catherine Rowett's chapter provides detailed discussion of the account of immortality in the *Phaedo*. For my purposes, a summary account is sufficient.

¹⁸ Also see Plato *Phaedo* 81c–82b, 88a–b, 95d, and 107e.

supplements this account: at 249b we hear that the ‘human soul passes into the life of a wild beast, and what was once a human back into a human from beast’. Finally, in the *Timaeus* (42c–d), we discover that one’s soul descends the *scala naturae* during metempsychosis according to virtue, and that the cycle of transmigration only comes to an end when one’s psychic compounds are brought into conformity with the revolution of the Same and uniform movement, which would bring the soul back to its original place and disposition.

- (3) ‘Things that at some point have come-into-being come-to-be again according to certain cycles, and, in short, nothing is new.’ This is one of the more interesting of the doctrines associated with Pythagoras’ teachings in Dicaearchus’ account of the popular fourth-century BCE version of Pythagoreanism. Dicaearchus’ fellow Peripatetic Eudemus of Rhodes also knows a much simpler version of this ‘Pythagorean’ axiom: ‘things are the same again in number’ (πάλιν τὰ αὐτὰ ἀριθμῶ; Fr. 88 Wehrli = Pythagorean Reception R27 Laks & Most). This claim is used to support the argument that time is infinite and recurrent, although Eudemus is more interested in the notion that recurrence is not particular to all generation, but only to motions that are cyclical, for example days, seasons, etc. One might consider that the ‘Pythagorean’ claim in Eudemus, as it is quoted, does not necessarily refer to recurrence; it could easily instead be directed to the problem of numerical identity, a subject I have argued elsewhere fascinated the early Pythagoreans indeed.¹⁹ Be that as it may, it is clear that the Platonic corpus presents the same argument as that associated with ‘Pythagoras’ by Dicaearchus: in the *Statesman*, the Eleatic Stranger presents a myth in which time and the motion of the universe move in cycles that affect all creatures. In the retrograde cycle, all generated things, including humans, wither and die; whereas in the prograde cycle, they are ‘put together there again and given life’ (271b). Slightly more circumspect is the Athenian Stranger in *Laws* X, where we hear both that the universe possesses cyclical motion in all its rational attributes (894c–d; 898a–b) and that the individual soul, which is ‘allied with different bodies at different times and perpetually undergoes all sorts of changes’ (903d), reflects the motions of heavenly bodies (which generate the seasons, etc.) – rational if measured by number, and irrational if unsystematized and disorderly. In the *Timaeus*, historical time, marked by social and

¹⁹ Horky 2013: 127–49.

technological advancement, is cyclical: Athens is destroyed by the flood and its history forgotten, rendering its people ‘children, as it were, all over again’ (πάλιν ἐξ ἀρχῆς οἶον νέοι; 23b); but it maintains its identity throughout the cycles of floods as the city of Athena.

- (4) ‘One ought to believe that all ensouled things that have come-to-be are of the same kind.’ This claim, which refers to the uniform kinship of animate things, is evidenced in Plato’s work throughout, and I have mentioned some examples above. To add to those: in the *Laws*, the fact that human souls are reborn and transmigrate reflects the ‘power of common origin’ (δύναμις τῆς κοινῆς γενέσεως) of the human and the cosmos (903d). In the *Statesman*, the Eleatic Stranger divides all things subject to generation (τὰ γιγνόμενα) into animate (τὰ ἔμψυχα) and inanimate (τὰ ἄψυχα), and then animate creatures into animals (τὰ ζῷα) and non-animals (261b–c); hence, animals are themselves a single kind which is subject to generation and ensouled. In the *Timaeus*, it is the fact that soul-motions permeate not only the world-soul but also individual souls of people that indicates their similarity (44b–c); the ‘intelligent orbits’ of the universe and of the human are expressly described as ‘akin’ (συγγενεῖς at 47b–c and at 90a–d), and it is humans’ ability to observe the periods of cosmic motion, including day-and-night, months, years, equinoxes, and solstices, that makes it possible for them to understand number, which consequently generates the idea of time.²⁰

Hence, each of the ‘Pythagorean’ doctrines listed by Dicaearchus here is Platonic, typically deriving from those portions of his work that deal with physics, cosmology, and psychology: *Phaedo*, *Republic X*, *Statesman*, *Timaeus*, and *Laws*. How can we explain the presence throughout Plato’s middle and late dialogues of the doctrines associated with Pythagoreanism by Dicaearchus? One possibility is that Plato actually adapted these very tenets from Pythagorean doctrines, and developed more complex approaches to them than had the Pythagoreans before him. The advantage of such an argument would be that we could better explain, for example, the abstract reference to the ‘priests and priestesses’ in the *Meno* passage mentioned earlier on – as I have argued elsewhere, Plato tends to reveal his positive inheritance from Pythagoreans chiefly through tactics of occlusion and misdirection.²¹

On the other hand, Dicaearchus, like other Peripatetics such as Theophrastus, sought to provide a ‘history of philosophy’ that identified

²⁰ See Broadie 2012: 19–20. ²¹ Horky 2013, ch. 6.

the substantial inheritance of Plato from the Pythagoreans, in the absence of actual texts of the early Pythagoreans.²² That Dicaearchus posited a Pythagorean Plato is explicit in a famous testimonium preserved by Plutarch in his *Table-Talk* concerning why Plato said that god ‘always does geometry’, in which Plutarch’s interlocutor Florus appeals to Dicaearchus in claiming that Plato followed not only Socrates, *but also Pythagoras*.²³ Writing about this passage, Stephen White says the following:

Plato’s primary debt ... is to Socrates, presumably not only as the protagonist of his dialogues but also as the dialectician and moral exemplar portrayed therein ... A debt to Pythagoras is also intelligible, though we can no longer tell whether Dicaearchus emphasized similarities in their educational and political proposals, shared interests in theoretical speculation and especially mathematics ... or some combination of these.²⁴

I would go further and venture to say that the account of Pythagorean doctrines was established in *On Lives* precisely to anticipate Dicaearchus’ account of Plato’s inheritance of Pythagorean physics, psychology, and ethics: the act of ‘recording’ Pythagoras’ doctrines concerning the immortality of the soul, metempsychosis, eternal recurrence, and kinship among animate things that are subject to generation counts as a dubious presentation of Pythagorean doctrines that are, in reality, Platonic in formulation, and probably also in origin.²⁵ This is, in my opinion, a more satisfactory explanation for the evidence from Dicaearchus (assuming it is reliably transferred through Porphyry), given the fact that none of these so-called doctrines of Pythagoras appears in the surviving fragments of the Pythagoreans Philolaus or Archytas, nor in the Pythagorean *acusmata*, nor in any other earlier doxographical accounts of Pythagoras’ doctrines, such as those of Isocrates, Antisthenes, or even Herodotus, nor in the *Pythagorean Precepts* of Aristoxenus. An objection to my interpretation, however, could contend that some or all of these claims can be traced back to Dicaearchus’ teacher Aristotle, who apparently did possess the texts of Philolaus and Archytas, and thus could be a ‘missing link’ between Dicaearchus’ account of Pythagorean psychology and lost portions of the early Pythagoreans’ works. Hence, we will next turn to Aristotle’s accounts of Pythagorean soul, in order to evaluate this hypothesis.

²² It is not obvious from the extant fragments that Dicaearchus had access to any original Pythagorean texts.

²³ Plutarch *Quaestiones Convivales* 8.2, 719a–b. ²⁴ White 2001: 225.

²⁵ Again, if Dicaearchus is the ultimate source behind Cicero *Tusculan Disputations* 1.16.38–1.17.39, we would witness the later transmission of this tradition (see n. 2 in this chapter).

2.3 Aristotle's Account of the Pythagorean Soul: Materialist Contexts

As is well known, the claim that Plato inherited Pythagorean philosophy is first attested by Aristotle in the *Metaphysics* (A 6, 987a29–b18), where we hear that Plato's notion of 'participation' (μέθεξις) was effectively the same as the Pythagoreans' notion of 'imitation' (μίμησις).²⁶ We do not hear anything about psychology here, although in *De anima* Aristotle refers to Pythagorean ideas about the soul twice. The first time occurs in the endoxastic account of Book Alpha. After spending several pages raising objections and puzzles concerning Plato's theory of the circular motion of the soul in the *Timaeus*, Aristotle turns to the relationship of the soul to the body:

ἐκεῖνο δὲ ἄτοπον συμβαίνει καὶ τούτῳ τῷ λόγῳ καὶ τοῖς πλείστοις τῶν περὶ ψυχῆς· συνάπτουσι γὰρ καὶ τιθέασιν εἰς σῶμα τὴν ψυχὴν, οὐθὲν προσδιορίσαντες διὰ τίν' αἰτίαν καὶ πῶς ἔχοντος τοῦ σώματος. καίτοι δόξειεν ἂν τοῦτ' ἀναγκαῖον εἶναι· διὰ γὰρ τὴν κοινωνίαν τὸ μὲν ποιεῖ τὸ δὲ πάσχει καὶ τὸ μὲν κινεῖται τὸ δὲ κινεῖ, τούτων δ' οὐθὲν ὑπάρχει πρὸς ἄλληλα τοῖς τυχοῦσιν. οἱ δὲ μόνον ἐπιχειροῦσι λέγειν ποῖόν τι ἡ ψυχὴ, περὶ δὲ τοῦ δεξομένου σώματος οὐθὲν ἔτι προσδιορίζουσιν, ὥσπερ ἐνδεχόμενον κατὰ τοὺς Πυθαγορικοὺς μύθους τὴν τυχοῦσαν ψυχὴν εἰς τὸ τυχόν ἐνδύεσθαι σῶμα. δοκεῖ γὰρ ἕκαστον ἴδιον ἔχειν εἶδος καὶ μορφήν.

A further absurdity occurs both in this argument [sc. that of the *Timaeus*] and in the majority of arguments concerning the soul: for they attach the soul to a body and place it in a body, without specifying through what cause the body exists, and what condition it is in. And yet someone would think that this is necessary: for it is through association that one acts and the other is acted upon, that one is moved and the other moves, but neither of these exists relative to the other in chance occurrences. But they only attempt to explain what sort of thing is the soul, whereas concerning the body that is to receive it, they do not specify anything further, as if it were to be possible, as in the Pythagorean myths, that any chance soul is clothed in any chance body; for each [body] seems to have a peculiar form and shape. (Aristotle *De anima* A 3, 407b13–24 = DK 58 B 39 = Pythagorean Reception R26/Pythagorean Doctrines D52 Laks & Most)

Aristotle's criticism here is leveled against Plato's *Timaeus* and 'the majority' of arguments that advance the theory that the body is a receptacle for the soul, without specifying what sort of body is able to receive such a soul: at issue here is Aristotle's commitment to the idea that forms are peculiar to

²⁶ I have discussed this extensively at Horky 2013: 30–4.

each species, which means that the matter of a dog, for example, cannot be receptive to the soul of a human.²⁷ When Aristotle associates the argument that any sort of soul can be invested with any sort of body with the ‘Pythagorean myths’, to what exactly was he referring, and who is the object of his ridicule?²⁸ In his commentary on Aristotle’s *De anima*, John Philoponus refers to Empedocles as one of the Pythagoreans who espoused this theory, even quoting fragment B 117 as evidence.²⁹ We might think that Philoponus has pointed to the right source of Aristotle’s ‘Pythagorean myths’, but there is a problem of correspondence: while Empedocles does say in B 117 that he had ‘once been a boy, a girl, a bush, a bird, and a fish’,³⁰ he does not describe these transmigrations as his soul donning various bodies as some sort of clothing, as Aristotle does (ἐνδεχόμενον . . . τὴν τυχοῦσαν ψυχὴν εἰς τὸ τυχόν ἐνδύεσθαι σῶμα).³¹ The closest point of reference here is Plato’s *Phaedo*, 87a–88b, where Cebes, a Pythagorean and student of Philolaus of Croton, offers his own particular contribution to the argument concerning the immortality of the soul.³² There, he argues that once the soul is separated from the body in death, it may perhaps migrate into another body, but that ultimately, unless the immortality of the soul is proven, we cannot be sure whether or not the soul will die in one of those deaths. Transmigration of the soul is described as someone donning several cloaks throughout his life and discarding them once they have worn too thin:

εἰκόνας γὰρ τινος, ὡς ἔοικεν, καὶ γὰρ ὥσπερ Σιμίας δέομαι. ἐμοὶ γὰρ δοκεῖ ὁμοίως λέγεσθαι ταῦτα ὥσπερ ἂν τις περὶ ἀνθρώπου ὑφάντου πρεσβύτου ἀποθανόντος λέγοι τοῦτον τὸν λόγον, ὅτι οὐκ ἀπόλωλεν ὁ ἀνθρώπος ἀλλ’ ἔστι που σῶς, τεκμήριον δὲ παρέχοιτο θοιμάτιον ὃ ἡμπείχετο αὐτὸς ὑφηνάμενος ὅτι ἐστὶ σῶν καὶ οὐκ ἀπόλωλεν, καὶ εἴ τις ἀπιστοίῃ αὐτῷ, ἀνερωτῶν πότερον πολυχρονιώτερον ἐστὶ τὸ γένος ἀνθρώπου ἢ ἱματίου ἐν

²⁷ This is at least what I take him to be saying, although other interpretations are possible (e.g. Cornelli 2016: 5–9).

²⁸ In his *Paraphrase of De Anima*, Themistius (p. 23.33–4 Heinze) adds that ‘that man [sc. Timaeus] employs [the Pythagorean myths] politically (πολιτικῶς), but they [sc. the Pythagoreans?] employ it for natural philosophy (φυσικῶς)’. The claim about Timaeus is interesting in the light of the fact that, as we discussed above, the text of the *Timaeus* describes a civic metempsychosis in Athens over time; but of course Timaeus is not the authority behind those claims.

²⁹ John Philoponus, *In De An.* p. 140.5–8 Hayduck.

³⁰ Empedocles DK 31 B 117 (= D13 Laks & Most): ἤδη γὰρ ποτ’ ἐγὼ γενόμεν κοῦρος τε κόρη τε / θάμνος τ’ οἰωνός τε καὶ ἔξαλος ἔλλοπος ἰχθύς.

³¹ To be sure, in B 126 (= Empedocles D19 Laks & Most) Empedocles mentions an unknown female subject that ‘envelops [herself] in an unrecognized cloak of flesh’ (σαρκῶν ἀλλογνῶτι περιστέλλουσα χιτῶνι), but we cannot be sure what the subject is, or the context from which this fragment derives.

³² On the character of Cebes and his status as Pythagorean, see Horky 2013: 171–5 and Sedley 1995: 14–21. See also the discussion of Simon Trépanier on p. 30.

χρεῖα τε ὄντος καὶ φορουμένου, ἀποκριναμένου δὴ τινος ὅτι πολὺ τὸ τοῦ ἀνθρώπου, οἷοιτο ἀποδεδεῖχθαι ὅτι παντὸς ἄρα μᾶλλον ὃ γε ἄνθρωπος σὼς ἐστιν, ἐπειδὴ τό γε ὀλιγοχροσιώτερον οὐκ ἀπόλλωλεν.

τὸ δ' οἶμαι, ὦ Σιμμία, οὐχ οὕτως ἔχει· σκόπει γὰρ καὶ σὺ ἃ λέγω. πᾶς γὰρ ἂν ὑπολάβοι ὅτι εὐθὺς λέγει ὁ τοῦτο λέγων· ὁ γὰρ ὑφάντης οὗτος πολλὰ κατατρίψας τοιαῦτα ἱμάτια καὶ ὑφηνάμενος ἐκείνων μὲν ὕστερος ἀπόλλωλεν πολλῶν ὄντων, τοῦ δὲ τελευταίου οἶμαι πρότερος, καὶ οὐδὲν τι μᾶλλον τούτου ἔνεκα ἀνθρωπὸς ἐστὶν ἱματίου φαυλότερον οὐδ' ἀσθενέστερον. τὴν αὐτὴν δὲ ταύτην οἶμαι εἰκόνα δέξαιτ' ἂν ψυχὴ πρὸς σῶμα, καὶ τις λέγων αὐτὰ ταῦτα περὶ αὐτῶν μέτρι' ἂν μοι φαίνοιτο λέγειν, ὥς ἡ μὲν ψυχὴ πολυχρόνιον ἐστὶ, τὸ δὲ σῶμα ἀσθενέστερον καὶ ὀλιγοχροσιώτερον· ἀλλὰ γὰρ ἂν φαίη ἐκάστην τῶν ψυχῶν πολλὰ σώματα κατατρίβειν, ἄλλως τε καὶ πολλὰ ἔτη βιώ—εἰ γὰρ ῥέοι τὸ σῶμα καὶ ἀπολλύοιτο ἔτι ζώντος τοῦ ἀνθρώπου, ἀλλ' ἡ ψυχὴ αἰεὶ τὸ κατατριβόμενον ἀνυφαίνοι—ἀναγκαῖον μεντὰν εἶη, ὁπότε ἀπολλύοιτο ἡ ψυχὴ, τὸ τελευταῖον ὕφασμα τυχεῖν αὐτὴν ἔχουσιν καὶ τούτου μόνου προτέραν ἀπόλλυσθαι, ἀπολομένης δὲ τῆς ψυχῆς τότε ἤδη τὴν φύσιν τῆς ἀσθενείας ἐπιδεικνύοι τὸ σῶμα καὶ ταχὺ σαπὲν διοίχοιτο. ὥστε τούτῳ τῷ λόγῳ οὕτω ὄξιον πιστεύσαντα θαρρεῖν ὡς ἐπειδὴν ἀποθάνωμεν ἔτι που ἡμῶν ἡ ψυχὴ ἐστὶν.

It seems, you see, that like Simmias I too need a sort of thought-experiment (εἰκὼν). For I think that the way in which these points are made is the same as if one were to give the following argument about a human being, a weaver who had died in old age. One might argue that the human being has not perished but exists intact somewhere, providing as evidence the fact that the cloak that he himself wove for his own use and wore is intact and has not perished. Should someone doubt him, he'd ask which is the longer-lasting kind of thing: a human being or a cloak that is in use and frequently worn. When the other replied that the human being is by far the longer-lasting kind, he'd suppose that it had been proved that the human being was therefore certainly intact, since the *shorter*-lasting one hadn't perished.

But in actual fact, Simmias, I think it isn't like that – for you too should consider what I'm saying. Everyone would protest that that is a simple-minded thing for someone to say; for that weaver of mine wore out and wove for himself many such cloaks, and then perished after the whole lot of them; and this was presumably before the last one, yet a human being is not, for all that, inferior to a cloak or weaker than it. Soul in its relation to body would, I think, warrant this same thought-experiment (εἰκὼν), and someone who says these same things about them would seem to me to be saying something quite reasonable, that the soul is long-lasting, the body weaker and shorter-lasting. None the less, he'd say, although each soul wears out many bodies, especially if it lives for many years (because if the body is in flux and perishing when the human being is still alive, the soul still always reweaves what is being worn out), all the same, when the soul perishes it must at that moment have its last piece of weaving and perish before that

one alone. And, after the soul perishes, only then does the body show its natural weakness and quickly rot and disappear. And so it is not right as yet to put one's trust in this argument and be confident that our soul still exists somewhere after we have died. (Plato, *Phaedo* 87b3–e7; trans. Long, with minor alterations)

Cebes describes the thought-experiment (εἰκὼν) that compares the soul–body relation to the human being–cloak relation as an ‘argument’ (λόγος) which is to be taken seriously, but is not necessarily convincing on its own and requires further investigation. The analogy is as impressive as it is challenging to account for fully, but it is not to the purpose of this chapter to examine it further. The basic point for our argument is this: in the absence of any evidence that the Pythagoreans believed that the transmigration of the soul is similar to its being clothed in various bodies, the most likely scenario is that when speaking of the elusive ‘Pythagorean myths’, Aristotle was referring to Cebes’ thought-experiment in the *Phaedo*. In fact, Aristotle’s criticism functions effectively as a critical reading of Cebes’ thought-experiment: the latter focuses chiefly on the fact that the soul wears many bodies over time, without critical consideration of how it is that the many bodies are supposed to have the capacity to receive one and the same soul. Hence, the ‘Pythagorean myth’ that the soul wears many bodies would appear to be a reference to the εἰκὼν of Cebes, the purported student of Philolaus and one of the stand-in ‘Pythagorean’ interlocutors in the dialogue. But, someone might object, what if Cebes’ argument really does reflect genuine Pythagorean ideas about the soul, such as those of his teacher Philolaus, which have not survived? Even in that case, Pythagorean soul, while transmigratory, need not be immortal: at no place in Aristotle’s summary of the ‘Pythagorean myths’, or Cebes’ argument concerning the cloak, do we have implicit or explicit reference to the immortality of the soul.³³ On the contrary, Cebes appeals to this thought-experiment to illustrate that the soul is ultimately *perishable*, and that it dies at some point which cannot be predicted. Cebes’ theory of the soul does, however, assume psychic transmigration, raising the possibility that the soul is long-lived but not immortal – a notion that has recently been associated with Empedocles’ psychology by Simon Trépanier and, in a slightly different tenor, Alex Long.³⁴

³³ Similarly with the account of Heraclides of Pontus (Fr. 86 Schütrumpf = Diogenes Laertius 8.4–5 = Pythagoras P37 Laks & Most), who associates with Pythagoras psychic transmigration, but not immortality: in fact, according to Heraclides’ story, Pythagoras was granted by his father Hermes to choose anything *except immortality* (πλὴν ἀθανασίας), so he chose the capacity to recollect his past lives instead.

³⁴ Cf. Long 2017 (immortal but not everlasting) and Trépanier 2017.

The second piece of evidence from Aristotle, which I will use to try to develop a more positive account of Pythagorean soul, comes earlier in *De anima*, in chapter 2 of book Alpha. There, Aristotle lays down the principles that drive his enquiry: those things that seem to the greatest extent to belong to soul according to nature are its movement and perception. He begins with the former, explaining how the atomists Democritus and Leucippus develop their particular theories of soul from the assumption that soul is something that moves. Democritus considers soul to be a sort of fire and heat: both fire and soul are spherical in shape, 'like the so-called motes in the air, which are apparent in the sunbeams passing through windows' (404a); he and Leucippus consider spherical atoms such as those of soul as capable of passing through everything and imparting their motion to other things. Soul atoms are constantly in motion and closely linked to respiration. Hence, so Aristotle says, all animals can continue to live as long as they are capable of respiration. At this juncture, Aristotle introduces the psychological theory of some Pythagoreans:

ἔοικε δὲ καὶ τὸ παρὰ τῶν Πυθαγορείων λεγόμενον τὴν αὐτὴν ἔχειν διάνοιαν· ἔφασαν γάρ τινες αὐτῶν ψυχὴν εἶναι τὰ ἐν τῷ ἀέρι ξύσματα, οἱ δὲ τὸ ταῦτα κινεῖν. περὶ δὲ τούτων εἴρηται ὅτι συνεχῶς φαίνεται κινούμενα, κἄν ἢ νηνεμία παντελής. ἐπὶ ταῦτ' οὖν δὲ φέρονται καὶ ὅσοι λέγουσι τὴν ψυχὴν τὸ αὐτὸ κινεῖν· εἰκόασι γὰρ οὗτοι πάντες ὑπειληφέναι τὴν κίνησιν οἰκειότατον εἶναι τῇ ψυχῇ, καὶ τὰ μὲν ἄλλα πάντα κινεῖσθαι διὰ τὴν ψυχὴν, ταύτην δ' ὑφ' ἑαυτῆς, διὰ τὸ μὴθὲν ὁρᾶν κινεῖν ὃ μὴ καὶ αὐτὸ κινεῖται.

What is said by the Pythagoreans seems to express the same notion: for some of them used to say that soul *is* the motes in the air, and others [used to say soul *is*] *what moves* them [sc. the motes]. Such things have been said concerning these things [sc. motes] because they are evidently continuously in motion, even when there is total windlessness. And those who say that soul is what moves itself arrive at the same conclusion; for all of them seem to assume that motion is the most distinctive characteristic of the soul, and that everything else is moved due to soul, which [they assume to be] moved by itself, because they see nothing producing movement which does not move itself too. (Aristotle, *De anima* A 2, 404a16–25 = DK 58 B 40 = Pythagorean Doctrines D49 Laks & Most)

This is fascinating testimony which does not always receive its due attention in the scholarship on the Pythagorean soul.³⁵ First of all, it is clear that Aristotle is linking together the atomists, some Pythagoreans, and Plato: he

³⁵ Huffman's account of the Pythagorean soul briefly mentions this passage twice (2009: 23 and 29), without examining in any detail the connections between the psychology ascribed to the

starts with Democritus and Leucippus, then links their arguments about the soul as *similar* to motes to the Pythagoreans' claim that the soul *is* motes, and rounds off the discussion with Plato's claim that soul is self-moving. The Pythagorean explanation given for associating soul with motes is based on observation that motes are continuously in motion, 'even when there is total windlessness' (this final qualification, as we shall see, will be of significance to our positive reconstruction of the Pythagorean theory of the soul).

Now Aristotle's correlation of Pythagorean and Democritean psychologies is worth further analysis, since it substantiates the possibility that the Pythagorean theory of the soul can be elucidated by comparison with the Democritean theory of the soul. A tiny portion of Aristotle's fragmentary *On the Opinions of the Pythagoreans*, preserved by Alexander of Aphrodisias, features the assertion that the Pythagoreans saw mind and soul as identical;³⁶ similarly, in *On Breath*, (ps-) Aristotle asserts the same of Democritus' theory of the soul.³⁷ As John Palmer has noted, Democritus' notion that soul is a kind of fire is directly comparable with the theory ascribed in the doxographical tradition to the mathematical Pythagorean and musicologist Hippasus of Metapontum, that soul (ψυχή) is 'fiery' (πυρώδης), and in this sense it arises out of the first principle (which, for Hippasus, was fire – that much is uncontroversial).³⁸ Both Democritus and Hippasus may have believed that the soul obtained the qualities readily ascribed to fire by contemporaries (recall Heraclitus' famous claim that the generation and destruction of fire are always in measure, and that fire is linked to *logos*).³⁹ Indeed, Democritus' links to Pythagoreanism are attested even in his own lifetime: they appear in the lost

Pythagoreans and that of Democritus or the other atomists. While it appears as a testimonium on the Pythagorean theory of the harmony of the soul in his edition of Philolaus (1993: 325), it does not inform his discussion. It is mentioned by Bernabé (2016: 21), although he does not consider the connections with Democritus or atomism there, and instead discusses the Orphics. It is not discussed by Cornelli (2016).

³⁶ Alexander *In Metaph.* A, p. 39.16–17 Hayduck = Aristotle Fr. 203 Rose (not in Laks & Most): 'And they [sc. the Pythagoreans] used to call the One "mind" and "substance"; for he [sc. Aristotle? a Pythagorean? Pythagoras?] says that the soul is mind, as it were' (νοῦν δὲ καὶ οὐσίαν ἔλεγον τὸ ἐν τῇ γὰρ ψυχῇ ὡς τὸν νοῦν εἶπε).

³⁷ [Arist.] *De respirat.* 4.472a3–8 = DK 68 A 106 (not in Laks and Most): 'But he [sc. Democritus] does identify the soul with the hot, as primary shapes of his spherical particles. So he contends that when these particles are being forced together by the pressure of the surrounding air, breathing intervenes to help them. For in the air there are a large number of these particles, which he calls mind and soul' (λέγει δ' ὡς ἡ ψυχὴ καὶ τὸ θερμὸν ταῦτόν, τὰ πρῶτα σχήματα τῶν σφαιροειδῶν. ἐκκρινομένων οὖν αὐτῶν ὑπὸ τοῦ περιέχοντος ἐκθλίβοντος, βοήθειαν γίνεσθαι τὴν ἀναπνοῇ φησιν. ἐν γὰρ τῷ ἀέρι πολλὸν ἀριθμὸν εἶναι τῶν τοιούτων ἃ καλεῖ ἐκεῖνος νοῦν καὶ ψυχὴν).

³⁸ Aristotle *Metaphysics* A 3, 984a7 = Hippasus D3 Laks & Most; Aëtius 4.3.4 = Hippasus D5 Laks & Most; cf. Tertullian *De Anima* 5 (not in Laks & Most).

³⁹ Heraclitus DK 22 B 30 = D 85 Laks & Most; DK 22 B 31 = D 86 Laks & Most.

writings on music of his younger contemporary, the fifth-century BCE musician and historian Glaucus of Rhegium, where the atomist is said to have studied with ‘one of the Pythagoreans’ (Apollodorus, in the passage, goes on to identify that Pythagorean as Philolaus).⁴⁰ There are other important connections: as Huffman has correctly pointed out, the only surviving fragment of Philolaus which refers to soul (ψυχή) associates it with perception and the heart – the heart being, for Democritus as for Philolaus, the place in the body where respiration is maintained.⁴¹ What is more, Democritus’ theory of the motions of the soul, as preserved in a fragment by Stobaeus, is informed by his interest in musicology:

ἀνθρώποισι γὰρ εὐθυμία γίνεται μετριότητι τέρψιος καὶ βίου συμμετρίῃ· τὰ δ’ ἑλλείποντα καὶ ὑπερβάλλοντα μεταπίπτειν τε φιλεῖ καὶ μεγάλας κινήσεις ἐμποιοῖν τῇ ψυχῇ. αἱ δ’ ἐκ μεγάλων διαστημάτων κινούμεναι τῶν ψυχῶν οὔτε εὐσταθεῖς εἰσιν οὔτε εὐθυμοί.

For humans achieve contentment through moderation in pleasure and proportioning of livelihood; excess and deficiency are apt to fluctuate and cause great movements in the soul. And movements of the souls⁴² away from major intervals are neither stable nor cheerful. (Democritus DK 68 B 191 = Stobaeus, *Eclogae* III.1.210 = Atomists D226 Laks & Most)

Comparison with the fourth-century BCE mathematical Pythagorean Archytas of Tarentum’s fragments and testimonia reveals, I suggest, a rich cluster of family resemblances between their philosophical systems; and it might help to elucidate not only the ‘Pythagorean’ theory of the soul mentioned by Aristotle, but also Democritus’ psychological theories. As is well known from Huffman’s work, Archytas (Fr. 2 Huffman, quoted directly

⁴⁰ Democritus DK 68 A 1 = P 21 Laks & Most = Glaucus of Rhegium Fr. 5 Lanata: ‘However, Glaucus of Rhegium, who lived at the same time as him [sc. Democritus] definitely affirms that he was taught by one of the Pythagoreans. And Apollodorus of Cyzicus, too, claims that he was a companion of Philolaus’ (πάντως μέντοι τῶν Πυθαγορικῶν τινος ἀκούσαι φησιν αὐτὸν Γλαῦκος ὁ Ῥηγίνος, κατὰ τοὺς αὐτοὺς χρόνους αὐτῷ γεγονῶς. φησὶ δὲ καὶ Ἀπολλόδορος ὁ Κυζικηνὸς Φιλολάῳ αὐτὸν συγγεγονέναι).

⁴¹ Philolaus of Croton Fr. 13 Huffman = D 26 Laks & Most: ‘The head [is the ἀρχή] of intellect, the heart of life and sensation, the navel of rooting and first growth, the genitals of the sowing of seed and generation. The brain [contains] the ἀρχή of a human, the heart of an animal, the navel of a plant, the genitals of all things. For all things both flourish and grow from seed’ (κεφαλὰ μὲν νόου, καρδία δὲ ψυχῆς καὶ αἰσθήσεως, ὀμφαλὸς δὲ ριζώσεως καὶ ἀναφύσεως τοῦ πρώτου, αἰδοῖον δὲ σπέρματος καταβολῆς τε καὶ γεννήσεως. ἐγκέφαλος δὲ <ἐχει> τὰν ἀνθρώπῳ ἀρχάν, καρδία δὲ τὰν ζώου, ὀμφαλὸς δὲ τὰν φυτοῦ, αἰδοῖον δὲ τὰν ζυνπάντων. πάντα γὰρ ἀπὸ σπέρματος καὶ θάλλονται καὶ βλαστάνονται). Trans. Huffman, with minor alterations. It is interesting to note that βλαστάνω, the verb employed by Philolaus to relate growth from seed, is used by Empedocles to refer to the birth of creatures in the cycles of nature at DK 31 B 21.10 (= D77 Laks & Most). In Empedocles the verb ἀναβλαστάνω also refers to humans becoming gods at DK 31 B 146 (= D 39 Laks & Most).

⁴² Or, as Laks & Most have it, ‘among souls, those that move . . .’

by Porphyry in *On Ptolemy's Harmonics* 1.5)⁴³ called harmonic ratios 'intervals' (διαστήματα) and sought to understand how the speed of things in motion, for example *rhomboid*, correlated with pitch (Fr. 1 Huffman);⁴⁴ it is also clear from testimonia that he encouraged ethical moderation (T A9 and A9a Huffman).⁴⁵ Most scholars also accept the claim that Archytas obtained his knowledge of musical intervals ultimately from the acoustic research of his predecessor Hippasus, especially in the musical pitches that obtain when bronze disks are struck.⁴⁶ We are thus encouraged to take seriously the idea that, when Democritus refers to 'movements of the souls away from major intervals', he is using terminology and concepts familiar to contemporary Pythagoreans in referring to musical 'intervals'. For Democritus, psychic movements that deviate from the 'major intervals' are either excessive or deficient, and thereby cause further psychological consternation.

The comparisons between Archytas' and Democritus' psychological theories are not limited to physics: they also obtain in reference to definitions of key moral concepts. In *Metaphysics* Eta, Aristotle preserves two definitions for Archytas, both of which are relevant to our discussion of Pythagorean and Democritean psychology. The two relevant terms are 'windlessness' (νηνεμία), which, as we saw above, appears prominently in Aristotle's account of the Pythagorean soul at *De anima* 404a (νηνεμία παντελής) as the environment within which the agitation of soul-motes is evident; and 'calmness' (γαλήνη), which does not appear there, but, as we will see, is associated with the psychological theories of both Archytas and Democritus in other testimonia and fragments. Here is Aristotle's description of Archytas' theory of definition:

διὸ τῶν ὀριζομένων οἱ μὲν λέγοντες τί ἐστὶν οἰκία, ὅτι λίθοι πλίνθοι ξύλα, τὴν δυνάμει οἰκίαν λέγουσιν, ὕλη γὰρ ταῦτα· οἱ δὲ ἀγγεῖον σκεπαστικὸν χρημάτων καὶ σωμάτων ἢ τι ἄλλο τοιοῦτον προτιθέντες, τὴν ἐνέργειαν λέγουσιν· οἱ δ' ἄμφω ταῦτα συντιθέντες τὴν τρίτην καὶ τὴν ἐκ τούτων οὐσίαν (ἔοικε γὰρ ὁ μὲν διὰ τῶν διαφορῶν λόγος τοῦ εἵδους καὶ τῆς ἐνεργείας εἶναι, ὁ δ' ἐκ τῶν ἐνυπαρχόντων τῆς ὕλης μάλλον)· ὁμοίως δὲ καὶ οἷους Ἀρχύτας ἀπεδέχετο ὅρους· τοῦ συνάμφω γὰρ εἶσιν, οἷον τί ἐστὶ νηνεμία· ἡρεμία ἐν πληθεί ἁέρος· ὕλη μὲν γὰρ ὁ ἄηρ, ἐνέργεια δὲ καὶ οὐσία ἡ ἡρεμία. τί ἐστὶ γαλήνη; ὁμαλότης θαλάττης· τὸ μὲν ὑποκείμενον ὡς ὕλη ἡ θάλαττα, ἡ δὲ ἐνέργεια καὶ ἡ μορφή ἡ ὁμαλότης.

Wherefore, some of those who give definitions, when they say what a house is, say that it is stones, brick, and wood and speak of the potential house, for these

⁴³ Archytas D15 Laks & Most. ⁴⁴ Archytas D14 Laks & Most. ⁴⁵ Archytas D24 Laks & Most.

⁴⁶ On the relationship between Hippasus' and Archytas' musical theories, see Horky 2013: 238–50.

things are matter. Others, proposing that it is a receptacle that shelters property and people or some other such definition, speak of the actuality. Some, combining both of these, speak of the third substance that is composed out of these. (For the account by means of differentiae seems to be of the form and the actuality, but the account from those things which are present in it is rather of the matter.) Archytas also approved of the same sort of definitions. For they are of both. For example, what is windlessness? Stillness in a mass of air. For the air is matter, but the stillness is actuality and substance. What is calmness? Levelness of sea. The sea is what underlies as matter. But the levelness is the actuality and form. (Archytas of Tarentum A 22 Huffman = Aristotle, *Metaphysics* H 2.1043a14–26 = D1 Laks & Most; trans. after Huffman)

Huffman's analysis of this testimonium ingeniously seeks to employ Philolaus' concept of limiters and unlimiteds, which are roughly equivalent to form and matter in Aristotle's terminology, in order to make sense of the Archytan definitions of 'windlessness' and 'calmness', but his arguments have met with much resistance.⁴⁷ I suggest we approach these puzzling definitions from an alternative angle that arises in the context of Democritean and Pythagorean moral psychology. For, according to Diogenes Laertius, Democritus believed that 'contentment' (εὐθυμία) is the telos of life, 'according to which the soul passes through life calmly and with stability (καθ' ἣν γαλήνῳς καὶ εὐσταθῶς ἡ ψυχὴ διάγει), undisturbed by any fear or superstition or any other affection'.⁴⁸ Note here that Diogenes' commentary represents a very reasonable explanation of DK 68 B 191, cited above, where it is assumed that humans seek 'cheerfulness' as a telos; note too, however, that Democritus, both in B 191 and in Diogenes' description of it, focuses on the importance of stability as an end that arises out of the soul's obtaining of cheerfulness (εὐσταθέες; sc. εὐσταθῶς).⁴⁹ For Archytas, it is clear that the concept of 'calmness' (γαλήνη) played a significant role in his philosophy, although Aristotle's inclusion for exemplary purpose in making definitions might obscure what otherwise could have been its use in moral psychology, as was clearly the case in the philosophy of Democritus.

Let us turn to the second term defined by Archytas, which appears conspicuously in Aristotle's description of the 'Pythagorean' theory of the soul as motes, as noted by Huffman: 'windlessness' (νηνεμία). 'Windlessness' is defined by Archytas simply as 'stillness in a mass of air' (ἡρεμία ἐν πλῆθει ἀέρος). The definiens in this case is interesting: the term for 'mass' (πλήθος)

⁴⁷ Huffman 2005: 494–99. For a dissenting view, see Barker 2006: 314–18.

⁴⁸ DK 68 A 1 = Diogenes Laertius 9.45 = Atomists D229 Laks & Most. On Democritus and εὐθυμία, see Johnson 2020: 222–27.

⁴⁹ Atomists D226 Laks & Most.

indicates that we are dealing with a quantity, an ‘amount’ of air (either as an unlimited stuff, or more likely, in my opinion, as some sort of corporealized collection of minima). The term *πλήθος* does not appear in Philolaus’ fragments, where *μέγεθος* instead is used to refer to the magnitude of harmony, i.e. the fourth and the fifth.⁵⁰ But it does appear in a remarkable testimonium concerning the (probably) late fifth-century BCE philosopher Ecphantus of Syracuse, as preserved by (ps-)Hippolytus:

Ἐκφαντός τις Συρακούσιος ἔφη μὴ εἶναι ἀληθινὴν τῶν ὄντων λαβεῖν γνῶσιν, ὀρίζει δὲ ὡς νομίζει· τὰ μὲν πρῶτα ἀδιαίρετα εἶναι σώματα καὶ παραλλαγὰς αὐτῶν τρεῖς ὑπάρχειν, μέγεθος σχῆμα δύναμις, ἐξ ὧν τὰ αἰσθητὰ γίνεσθαι. εἶναι δὲ τὸ πλήθος αὐτῶν ὠρισμένον καὶ τοῦτο [?] ἄπειρον. κινεῖσθαι δὲ τὰ σώματα μῆτε ὑπὸ βάρους μῆτε πληγῆς, ἀλλ’ ὑπὸ θείας δυνάμεως, ἣν νοῦν καὶ ψυχὴν προσαγορεύει. τούτου μὲν οὖν τὸν κόσμον εἶναι ἰδέαν, δι’ ὃ καὶ σφαιρεῖδῃ ὑπὸ θείας δυνάμεως γεγενῆσθαι. τὴν δὲ γῆν μέσον κόσμου κινεῖσθαι περὶ τὸ αὐτῆς κέντρον ὡς πρὸς ἀνατολήν.

A certain Ecphantus of Syracuse said that it is not possible to grasp a true knowledge of the things that are; but he defines [things] just as he thinks: the primary things are indivisible bodies, and there are three variations of these, *viz.*, magnitude, shape, and power, out of which the sensibles arise. But [he said] that there is a definite quantity of these, and that this (?) is infinite. And [he said] that bodies are moved neither by weight nor by impact, but by a divine power, which he calls mind and soul; and that the cosmos is an image of this [sc. mind and soul], through which it also has become spherical, under divine power; and that the earth in the middle of the cosmos is moved around its own centre towards the east. (Ecphantus of Syracuse DK 51F 1 = (ps-)Hippolytus, *Refutation of All Heresies* 1.15 = D1 Laks & Most)

We know from other testimonia preserved by Aëtius that Ecphantus was one of the Pythagoreans, and that he was thought to have believed that the first principles are void and the indivisible bodies, which he is credited with being the first to identify with ‘units’.⁵¹ Aëtius also tells us that Ecphantus believed that the cosmos was constituted of atoms;⁵² and we will recall that Ecphantus and Democritus, as well as unnamed ‘Pythagoreans’ in

⁵⁰ Philolaus Fr. 6a Huffman = D14 Laks & Most.

⁵¹ Ecphantus of Syracuse DK 51 F 2 = Aëtius 1.3.19 = D2 Laks & Most: ‘Ecphantus of Syracuse, one of the Pythagoreans, [said that the first principles] of all things are the indivisible bodies and the void; for he was the first to show that the Pythagorean units were corporeal’ (Ἐκφαντός Συρακούσιος, εἰς τῶν Πυθαγορείων, πάντων τὰ ἀδιαίρετα σώματα καὶ τὸ κενόν [ἀρχὰς εἶναι]· τὰς γὰρ Πυθαγορικάς μονάδας οὗτος πρῶτος ἀπεφάνητο σωματικὰς).

⁵² Ecphantus of Syracuse DK 51 F 2 = Aëtius 2.3.3 = D4 Laks & Most: ‘Ecphantus [said that] the cosmos was constituted out of atoms, and that it is overseen by providence’ (Ἐκφαντός ἐκ μὲν ἀτόμων συνεστάναι τὸν κόσμον, διοικεῖσθαι δὲ ὑπὸ προνοίας).

Aristotle's lost treatise, all asserted that mind and soul were identical. Hence, at least in the case of Ecphantus, we have evidence of an early Pythagorean who believed that the primary minima, which were furthermore corporeal, were atoms, and that these atoms varied according to magnitude, shape, and power (μέγεθος σχῆμα δύναμις). In this way, he may have differentiated his theory from that of Democritus, who held that atoms (or 'the full') differed from void according to position, shape, and arrangement (θέσις σχῆμα τάξις).⁵³

With this information in hand, let us return to Aristotle's description of 'Pythagorean' soul as 'motes in the air' which 'appear to be continuously in motion, even when there is total windlessness'. One possible interpretation that can synthesize all the information provided above is this: Pythagorean soul, on Aristotle's reading, is the motes which, because they feature a spherical shape, are continuously in motion even when embedded among a mass of air atoms, which also possess a distinctive shape and set of properties of their own. This reconstruction makes the Pythagorean theory of the soul mentioned here very similar to that of Democritus, but it also accounts for Archytas' definition of 'windlessness' as 'stillness in the air' and Ecphantus' unique version of Pythagorean number-atomism. On Aristotle's reading, the Pythagoreans assume that soul is motes because of the fact that the latter are observed to be continually moving; soul could thus appear to be immortal if and only if we assume that what is immortal is what is continuously in motion. But if Pythagorean soul is the motes as they were conceptualized by Democritus and Ecphantus, it would be corporeal and, thus, material.⁵⁴

Is it possible to conceptualize the soul as a substance both immortal and material? If soul is atomic in the Democritean sense, then the difficulties would evaporate. Pythagorean soul atoms would be both immortal and material, but subsequent *compounds* of soul atoms – possibly arranged according to harmonic intervals – would not: hence, human and other animal souls would be subject to death, but soul atoms per se would be everlasting. This interpretation fits with what we know about Democritus' atomic theory: atoms were immortal, indivisible primary corporeal minima, but the compounds these atoms formed, including humans and their souls, were indeed perishable.⁵⁵ Hence, we have advanced a version of

⁵³ So Arist. *Metaph.* 985b4–20 = DK 67 A 6 = Atomists D31 Laks & Most. Simplicius (DK 68 A 38 = Atomists D32 Laks & Most) probably preserves the original words: contour, rotation, and contact (ῥυσμός τροπή διασθηγή).

⁵⁴ Cf. Huffman 2009: 33, who speculates that Philolaus may have believed in a material soul.

⁵⁵ See Arist. *Fr.* 208 Rose = Democritus D29 Laks & Most, where Aristotle refers atoms to the 'nature of eternal things' (αἰδίων φύσις), and *GC* 1.2, 315b8–9 = Atomists D71 Laks & Most, where Aristotle

Pythagorean psychology that, on the most reasonable construction (as informed by Democritus' theory), makes the soul into a perishable compound.

2.4 Conclusion: Pythagorean Immortality of Soul?

This chapter has explored an early Pythagorean theory of the immortality of the soul through a methodological approach that challenges common assumptions about Pythagorean psychology by appeal to an extreme form of historiographical scepticism. It has concluded that a standard scholarly position on the early Pythagorean soul, that it is immortal (in the sense of being everlasting), is chiefly a product of a historically unreliable doxographical tradition whose *terminus post quem* is no earlier than the last two decades of the fourth century BCE, several years after the Pythagorean communities in Italy had been dispersed. This theory of the soul's immortality, which is originally derived from a popular view according to its putative source, the Peripatetic Dicaearchus of Messana, effectively reproduces material derived from Plato's dialogues, and hence cannot be taken at face value as a genuine expression of early Pythagoreanism. However, a thought-experiment advanced in Plato's *Phaedo* (87b3–c7) by Cebes, who was thought to have been a student of the mathematical Pythagorean Philolaus of Croton, represents a psychological theory independent of Platonic commitments that could lay claim to being a genuine expression of Pythagorean psychology. Cebes' theory, which would appear to be the source for the 'Pythagorean myths' mentioned by Aristotle in *De anima* A 4, stipulates that the soul is indeed transmigratory (a theory which is guaranteed by Xenophanes' witness), but ultimately perishable. Careful examination of Aristotle's account of Pythagorean psychology in *De anima* reveals important, if seldom discussed, parallels to the psychological theories of three figures associated with Pythagoreanism in the early fourth century BCE: the materialist atomists Democritus and Ecphantus, and Archytas of Tarentum – in addition to the aforementioned Cebes. Democritus and Ecphantus both hold that the soul is material and

explains that, for the atomists Leucippus and Democritus, generation and corruption are caused by 'dissociation and association' (διακρίσει καὶ συγκρίσει) of atoms in compounds, and alteration by 'order and position' (τάξει καὶ θέσει) of atoms in relation to one another. It appears that some soul atoms remained in the body upon death, but that they gradually dissipate over time (cf. Aëtius 4.7.4 = Atomists D 139 Laks & Most; 4.4.7 = D 140 Laks & Most). On death in Democritus, see Taylor (2007: 77–80), who speaks of 'the cessation of psychic functioning, consequent on the loss of a number of soul-atoms sufficient to sustain that functioning'.

composed of atoms, and that the atoms themselves are immortal, while the soul only lives as long as its composition in the body persists. Hence, for these figures, the soul is not immortal – if, again, by ‘immortal’ we mean ‘everlasting’. Ancient doxographers and commentators on the Pythagorean soul, however, could have confused the immortality of the *components of the soul*, atoms, with the immortality of the *soul itself*. Because ‘soul’ (ψυχή) is understood by these figures to be the persistent arrangement of soul atoms in a single compound, it perishes as soon as this arrangement is dissolved – although this theory would allow for the possibility of transmigration, in the sense that a collection of soul atoms constituted into a new body would retain their quantitative identity, but not their shape or pattern. This theory demonstrates the greatest number of parallels to the theory of the soul ascribed to Cebes in Plato’s *Phaedo*: for Cebes, and quite possibly for Ecphantus too, the soul is material, mortal, transmigratory, and long-lived. It is possible that this theory reflects a later, or a ‘mathematical’, inflection of a more general Pythagorean theory of the soul that could be traced back to the first or second generation of the Pythagoreans in Italy. Be that as it may, I hope it is clear from this chapter that the old adage about Pythagoras or the Pythagoreans inventing or introducing to Greece a concept of the immortal soul can now be securely dismissed.

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