3. PYTHAGORAS AND EARLY PYTHAGOREANISM

Pythagoras was born on the island of Samos in the eastern Aegean some time around 570 BCE; according to tradition his father was a gem-cutter or engraver. He reportedly traveled in Egypt and Babylonia, leaving Samos around 530 to escape the rule of the tyrant Polycrates. Eventually, Pythagoras settled in Croton, in southern Italy. There he was well-respected and gained political influence. He founded a community for himself and his followers that was philosophical, political, and religious. The exclusivity of the group angered some, and in about 500 there was an uprising in Croton (and elsewhere in Italy) against the Pythagoreans. The Pythagoreans were temporarily driven out of Croton, and many were killed. Pythagoras himself took refuge in Metapontum and died not long afterwards (some say he starved himself to death in a temple). Despite these and other setbacks—some Pythagoreans departed for the Greek mainland—there continued to be groups of Pythagoreans in southern Italy until about 400. Even then Archytas of Tarentum remained. He was a great mathematician and a friend of Plato.

Little is known of the views of Pythagoras himself, except that he had a reputation for great learning—a reputation that would later be mocked by Heraclitus—and that he was most likely the originator of the important and influential Pythagorean doctrine of the transmigration of souls, a view that Xenophanes ridiculed. This difficulty is noted by those in the ancient world who wrote about Pythagoras (see selection number 8 below). Sometime during his life or after his death, Pythagoras' followers split into two groups, which mirrored the two aspects of Pythagorean teaching. These groups were the mathēmatikoi and the akousmatikoi.¹ The akousmatikoi were disciples who venerated Pythagoras' teachings on religion and the proper way to live, but had little interest in the philosophical aspects of

1. The word *akousmatikoi* comes from *akousmata*, "things heard." The word *mathēmatikoi* comes from *mathēmata*, "things studied" or "learned." The later Pythagoreans Philolaus (see Chapter 12) and Archytas (active in the first half of the fourth century) were members of the *mathēmatikoi*. Some scholars think the division belongs to later stages of Pythagoreanism.

Pythagoreanism. The mathēmatikoi had a great reputation in the ancient world for philosophical, mathematical, musical, and astronomical knowledge, while still following a Pythagorean way of life. All these different branches of study were connected in Pythagorean thought, for the Pythagoreans believed that number was the key to understanding the cosmos. Their original insight seemed to be that the apparent chaos of sound can be brought into rational, hence knowable, order by the imposition of number. They reasoned that the entire universe is a harmonious arrangement (kosmos in Greek), ordered by and so knowable through, number. The Pythagoreans apparently rejected the Ionian methods of inquiry, and turned from searching out the basic stuff of the universe to a study of the form that makes it a kosmos.

Note on the texts: The evidence about Pythagoras and Pythagoreanism is to be found in several chapters in DK. In the texts given here, the first number in parenthesis is the DK number for the chapter in which the passage occurs.

- (21B7) Once he passed by as a puppy was being beaten, the story goes, and in pity said these words: "Stop, do not beat him, since it is the soul of a man, a friend of mine, which I recognized when I heard it crying." (Diogenes Laertius, *Lives of the Philosophers* 8.36)
- (22B40) Much learning ["polymathy"] does not teach insight. Otherwise it would have taught Hesiod and Pythagoras and moreover Xenophanes and Hecataeus.

(Diogenes Laertius, Lives of the Philosophers 9.1)

- 3. (22B129) Pythagoras the son of Mnesarchus practiced inquiry [historiē] more than all other men, and making a selection of these writings constructed his own wisdom, polymathy, evil trickery. (Diogenes Laertius, Lives of the Philosophers 8.6)
- (36B4) Thus he [Pherecydes] excelled in both manhood and reverence and even in death has a delightful life for his soul, if indeed Pythagoras was truly wise about all things,

he who truly knew and had learned thoroughly the opinions of men.²

(Diogenes Laertius, Lives of the Philosophers 1.120)

5. (31B129) There was a certain man among them who knew very holy matters, who possessed the greatest wealth of mind, mastering all sorts of wise deeds. For when he reached out with all his mind, easily he would survey every one of the things that are, yea, within ten and even twenty generations of humans.³ (Porphyry, *Life of Pythagoras* 30)

6. (14,10)⁴ Is Homer said to have been during his life a guide in education for people who delighted in associating with him and passed down to their followers a Homeric way of life? Pythagoras himself was greatly admired for this, and his followers even nowadays name a way of life Pythagorean and are conspicuous among others.

(Plato, *Republic* 10 600a–b)

7. (14,1) The Egyptians were the first to declare this doctrine, too, that the human soul is immortal, and each time the body perishes it enters into another animal as it is born. When it has made a circuit of all terrestrial, marine, and winged animals, it once again enters a human body as it is born. Its circuit takes three thousand years. Some Greeks have adopted this doctrine, some earlier and some later, as if it were peculiar to them.

I know their names, but do not write them.

(Herodotus, Histories 2.123)

2. Translator's note: Ion is suggesting that Pherecydes' soul has a delightful afterlife. Pherecydes lived in the sixth century BCE.

3. This passage is from Empedocles, who does not mention Pythagoras by name here, and there is doubt (both ancient and modern) whether he meant to praise Pythagoras here or someone else. (Diogenes Laertius suggested that the verse was meant to honor Parmenides.)

4. The Pythagoras chapter of DK (14) is not divided into subsections, as are most of the rest of the chapters; thus there is no indication of "A" or "B" in references to texts collected there.

8. (14.8a) What he said to his associates, no one is able to say with any certainty, for they kept no ordinary silence among themselves. But it was especially well-known by all that first he declares that the soul is immortal; then that it changes into other kinds of animals; in addition that things that happen recur at certain intervals, that nothing is absolutely new, and that all things that come to be alive must be thought akin. Pythagoras seems to have been the first to introduce these opinions into Greece.

(Porphyry, Life of Pythagoras 19)

9. (58B40) Some of them [the Pythagoreans] declared that the soul is the motes in the air, and others that it is what makes the motes move.

(Aristotle, On the Soul 1.2 404a17)

10. (14.8) Heraclides of Pontus says that Pythagoras said the following about himself. Once he had been born Aethalides and was believed to be the son of Hermes. When Hermes told him to choose whatever he wanted except immortality, he asked to retain both alive and dead the memory of what happened to him. . . . Afterwards he entered into Euphorbus and was wounded by Menelaus. Euphorbus said that once he had been born as Aethalides and received the gift from Hermes, and told of the migration of his soul and what plants and animals it had belonged to and all it had experienced in Hades. When Euphorbus died his soul entered Hermotimus, who, wishing to provide evidence, went to Branchidae, entered the sanctuary of Apollo, and showed the shield Menelaus had dedicated. (He said that when Menelaus was sailing away from Troy he dedicated the shield to Apollo.) The shield had already rotted away and only the ivory facing was preserved. When Hermotimus died, it [the soul] became Pyrrhus the Delian fisherman and again remembered everything. . . . When Pyrrhus died it became Pythagoras and remembered all that had been said.

(Diogenes Laertius, Lives of the Philosophers 8.4–5)

11. (14,2, 58C4) There are two kinds of the Italian philosophy called Pythagorean, since two types of people practiced it—the *akousmatikoi* and the *mathēmatikoi*. Of these, the *akousmatikoi* were admitted to be Pythagoreans by the others, but they, in turn, did not recognize the *mathēmatikoi* but claimed that their pursuits were not those

of Pythagoras, but of Hippasus. . . . The philosophy of the *akous-matikoi* consists of unproved and unargued *akousmata* to the effect that one must act in appropriate ways, and they also try to preserve all the other sayings of Pythagoras as divine dogma. These people claim to say nothing of their own invention and say that to make innovations would be wrong. But they suppose that the wisest of their number are those who have got the most *akousmata*.

(Iamblichus, *Life of Pythagoras* 81, 82; from Aristotle?)

12. (58C4) All the *akousmata* referred to in this way fall under three headings: (a) Some indicate what something is; (b) others indicate what is something in the greatest degree; and (c) others what must or must not be done. (a) The following indicate what something is. What are the Isles of the Blest? Sun and Moon. What is the oracle at Delphi? The tetractys, which is the harmony in which the Sirens sing. (b) Others indicate what is something in the greatest degree. What is most just? To sacrifice. What is the wisest? Number, and second wisest is the person who assigned names to things. What is the wisest thing in our power? Medicine. What is most beautiful? Harmony.

(Iamblichus, Life of Pythagoras 82; from Aristotle?)

13. (58C3) <Pythagoras ordered his followers> not to pick up <food> which had fallen, to accustom them not to eat self-indulgently or because it fell on the occasion of someone's death . . . not to touch a white rooster, because it is sacred to the Month and is a suppliant; it is a good thing, and is sacred to the Month because it indicates the hours, and white is of the nature of good, while black is of the nature of evil . . . not to break bread, because friends long ago used to meet over a single loaf just as foreigners still do, and not to divide what brings them together. Others <explain this practice> with reference to the judgment in Hades, others say that it brings from this.

(Aristotle, fr. 195 [Rose], quoted in Diogenes Laertius, *Lives of the Philosophers* 8.34ff.)

14. (58C6) Do not stir the fire with a knife. Rub out the mark of a pot in the ashes. Do not wear a ring. Do not have swallows in the house.

Spit on your nail parings and hair trimmings.

Roll up your bedclothes on rising and smooth out the imprint of the body.

Do not urinate facing the sun.

(Selections from Iamblichus, Protrepticus 21; from Aristotle?)

15. (14,1) The Egyptians agree in this with those called Orphics . . . and with the Pythagoreans; for it is likewise unholy for anyone who takes part in these rites to be buried in woolen garments.

(Herodotus, Histories 2.81)

16. The tetractys is a certain number, which being composed of the four first numbers produces the most perfect number, 10. For 1 and 2 and 3 and 4 come to be 10. This number is the first tetractys and is called the source of ever-flowing nature, since according to them the entire *kosmos* is organized according to *harmonia*, and *harmonia* is a system of three concords, the fourth, the fifth, and the octave, and the proportions of these three concords are found in the aforementioned four numbers.

(Sextus Empiricus, Against the Mathematicians 7.94–95; not in DK)

17. (58B4) At the same time as these [Leucippus and Democritus] and, before them, those called Pythagoreans took hold of mathematics and were the first to advance that study; and being brought up in it, they believed that its principles are the principles of all things that are. Since numbers are naturally first among these, and in numbers they thought they observed many resemblances to things that are and that come to be . . . and since they saw the attributes and ratios of musical scales in numbers, and other things seemed to be made in the likeness of numbers in their entire nature, and numbers seemed to be primary in all nature, they supposed the elements of numbers to be the elements of all things that are.

(Aristotle, Metaphysics 1.5 985b23-28; 33-986a2)

18. (58B5)⁵ The elements of number are the even and the odd, and of these the latter is limited and the former unlimited. The one is

5. This material may be based on Aristotle's study of Philolaus, and so it may refer to the later form of Pythagoreanism developed by Philolaus.

composed of both of these (for it is both even and odd), and number springs from the one; and numbers, as I have said, constitute the whole universe.

(Aristotle, Metaphysics 1.5 986a17-21)

19. (58B28) They say that the unlimited is the even. For when this is surrounded and limited by the odd it provides things with the quality of unlimitedness. Evidence of this is what happens with numbers. For when gnomons are placed around the one, and apart, in the one case the shape is always different, and in the other it is always one.

(Aristotle, *Physics* 3.4 203a10–15)

20. (58B5) Others of this same school declare that there are ten principles arranged in parallel columns:

limit	unlimited
odd	even
one	plurality
right	left
male	female
at rest	moving
straight	bent
light	darkness
good	evil
square	oblong

This is how Alcmaeon of Croton too seems to have understood things, and either he took this theory from them or they from him. . . . He says that most human matters are pairs, identifying as the oppositions not definite ones like the Pythagoreans . . . but the Pythagoreans described how many and what the oppositions are.

(Aristotle, Metaphysics 1.5 986a22-b2)

Suggestions for Further Reading

All of the entries have further bibliographies. Complete bibliographical information for collections may be found in the bibliography in the Introduction, pp. 10–12. See also the relevant chapters in Barnes; Guthrie; and Kirk, Raven, and Schofield in the Introduction's bibliography.

- Barker, A. D. 1989. *Greek Musical Writings, Vol. II: Harmonic and Acoustic Theory.* Cambridge: Cambridge University Press.
- Burkert, W. 1972. Lore and Science in Ancient Pythagoreanism, translated by E. Minar. Cambridge, MA: Harvard University Press (1st German edition, 1962).
- Huffman, C. 1999. "Pythagoras." In *The Stanford Encyclopedia of Philosophy* (*Winter 2009 Edition*), edited by Edward N. Zalta. http://plato.stanford.edu/archives/win2009/entries/pythagoras/.

------. "The Pythagorean Tradition," in Long, pp. 66-87.

———. 2008. "Pythagoreanism." In *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*, edited by Edward N. Zalta. http://plato.stanford.edu/archives/fall2008/entries/pythagoreanism/.

——. "Two Problems in Pythagoreanism," in Curd and Graham, pp. 284–304.

——. 2009. "The Pythagorean Conception of the Soul from Pythagoras to Philolaus." In *Body and Soul in Ancient Philosophy*, edited by D. Frede and B. Reis. Berlin: Walter de Gruyter, pp. 21–44.

- Hussey, E. "Pythagoreans and Eleatics," in Taylor, pp. 128–74.
- Kahn, C. 2001. Pythagoras and the Pythagoreans. Indianapolis: Hackett.
- Kingsley, Peter. 1995. Ancient Philosophy, Mystery, and Magic. Oxford: Clarendon Press.
- Minar, Edwin L. 1942. *Early Pythagorean Politics in Practice and Theory*. Baltimore: Waverly Press.
- Philip, J. A. 1966. *Pythagoras and Early Pythagoreanism*. Toronto: University of Toronto Press.
- Riedweg, Christoph. 2005. *Pythagoras: His Life, Teaching, and Influence*. Ithaca and London: Cornell University Press.
- West, M. L. 1992. Ancient Greek Music. Oxford: Clarendon Press.