

PYTHAGOREAN COMMUNITIES: FROM INDIVIDUALS TO A COLLECTIVE PORTRAIT*

In the middle of his doxographical discussion of the Pre-Socratic theories, Aristotle makes an interesting psychological remark:

It is what we are all inclined to do, to direct our inquiry not by the matter itself, but by the views of our opponents. (*De caelo* 294 b 5).

I think one can hardly find a better motto for the Pythagorean studies of the last two centuries. Most books on Pythagoras and early Pythagoreanism are highly polemical. This includes even such a paragon of objective research as Zeller,¹ for he, too, had his own target to attack. This was Röth's *History of Western Philosophy*,² which accepted the entire ancient tradition on Pythagoras as historically reliable. Zeller's critical approach to the sources razed Röth's construction to the ground, so that very little remained of Pythagoras. Incidentally, what has remained – the philosophical doctrine that "all is number", the astronomical theory of the spheres, and the concept of the Central Fire – has nothing in common with Pythagoras.

Admittedly, Zeller's approach *per se* is sound and his distinction between the classical and the later sources is crucial, indeed. The problem is, however, that the classical authors did exactly what Aristotle said: they were guided not by the matter itself, but by the views of their opponents. Aristotle's own opponents were the Academics, and this fact had a great impact on his treatment of the Pythagoreans. No other Pre-Socratic thinker was the object of such lively debate between philosophers as Pythagoras. Starting with Xenophanes (21 B 7) and Heraclitus (22 B 40, 81, 129), the entire 5th-century tradition on Pythagoras is polemical. This is one of the reasons why this tradition had much more to say about Pythagoras than about any other Pre-Socratic thinker. The first book about a Greek philosopher was Democritus' *Pythagoras* (68 A 33, 1 DK). At the same time, around

* Oral version of this paper was first presented at the *Symposium philosophiae antiquae quintum. Polarity and Tension of Being: Pythagoras and Heraclitus* (Samos, 2005).

¹ E. Zeller, *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung I* (Leipzig 51895).

² E. Röth, *Geschichte unserer abendländischen Philosophie* (Mannheim 1846).

400 BC, a Sophist from Miletus, Anaximander the Younger, wrote a book on the Pythagorean σύμβολα (58 C 6 DK). When the Academy created the monograph, the first genre of philosophical historiography, which is devoted to an individual thinker or a school, the first examples were Πυθαγόρεια by Xenocrates (fr. 2 Isnardi Parente) and *On the Pythagoreans* by Heraclides Ponticus (fr. 22, 40–41 Wehrli). Speusippus wrote a book *On the Pythagorean Numbers* (fr. 28 Tarán). In addition to the works about or against individual Pythagoreans, Aristotle wrote two special monographs: *About the Pythagoreans* (fr. 191–196 Rose), which contains a collection of the materials, and *Against the Pythagoreans* (fr. 198–205 Rose), which discusses their philosophical and scientific views.

In the next generation, Aristoxenus' works on Pythagoras and his followers draw an idealized picture of the philosophers, scientists, and politicians who lived according to their ethical principles.³ This is not the picture that we find in Aristotle or for that matter in Aristoxenus' biographies of Socrates and Plato, which are full of scandalous stories (fr. 54 a, 62, 67 Wehrli). Much less prejudiced, Dicaearchus also highlights Pythagoras, Socrates, and Plato as the heroes of his biographical works and uses them to represent various forms of philosophical life.⁴ In Eudemus' histories of mathematics and astronomy, the Pythagoreans are quite dissimilar to the Pythagoreans of Dicaearchus, though not directly opposed to them.⁵

Thus, even when restricting ourselves to the classical sources, we still get the same principal hypostases of Pythagoras as found in modern scholarship. Pythagoras is seen as an amalgam of a religious and moral teacher, a politician, a philosopher and scientist and the proportion of these qualities he is assigned seems to be a matter of a personal choice. Burkert⁶ says 90 % religion and 10 % politics with no science and philosophy, while van der Waerden⁷ assigns 50 % religion and 50 % mathematics, whereas Riedweg⁸ views this as 98 % religion and 2 % philosophy with

³ Περὶ Πυθαγόρου καὶ τῶν γνωρίμων αὐτοῦ (fr. 11–25 Wehrli), Περὶ τοῦ Πυθαγορικοῦ βίου (fr. 26–32), Πυθαγορικαὶ ἀποφάσεις (fr. 33–41), Ἄρχυτα βίος (fr. 47–50).

⁴ S. White, “*Principes Sapientiae*: Dicaearchus' biography of philosophy”, in W. W. Fortenbaugh, E. Schütrumpf (ed.), *Dicaearchus of Messana* (New Brunswick 2001) 195–236.

⁵ See L. Zhmud, *The Origin of the History of Science in Classical Antiquity* (Berlin 2006).

⁶ W. Burkert, *Lore and Science in Ancient Pythagoreanism*. (Cambridge, Mass. 1972).

⁷ B. L. van der Waerden, *Die Pythagoreer: Religiöse Bruderschaft und Schule der Wissenschaft* (Zürich 1979).

⁸ C. Riedweg, *Pythagoras: Leben, Lehre, Nachwirkung* (München 2002), tr.: *Pythagoras: His Life, Teaching, and Influence* (Ithaca – London 2005).

no percentage of science. Now, I do not want to defend my own view of these proportions,⁹ or if so, only in a very indirect way. Everyone who knows Carl Huffman's works on Philolaus and Archytas¹⁰ would agree that they are by far not as polemical as e.g. Burkert's book or my own book. In terms of their subject matter, there are two obvious reasons for this. First, Huffman does not need to prove that Philolaus *was* a philosopher or that Archytas *was* a mathematician and a politician. Second, there is no Pythagoras in Huffman's books, for he does not need him. I still have great difficulty in speaking about early Pythagoreanism without reference to Pythagoras,¹¹ even though everything that concerns him appears to be highly disputable. In 1819, it was quite logical for A. Böckh to start Pythagorean philosophy and science with Philolaus, for he believed he could find here the undeniable written evidence that either did not exist in the preceding period or was not so undeniable.¹² As we know, Philolaus' case has proved to be more complicated than Böckh thought; it needed the joint efforts of many scholars to be settled. Yet it does not follow from this that the earlier period cannot be reconstructed. Since it seems that Pythagoras himself is the main obstacle to such a reconstruction, I am going to leave him in peace for the time being and to turn to a much less problematic matter, namely to the Pythagoreans.

Why are they actually not as problematic as the founder of the school? Well, because they are different. Pythagoras pretended to possess supernatural qualities and was thereby the kind of person who attracted legends, even if originally they were not connected with him. In contrast to Pythagoras, no historically known early Pythagorean is connected with anything supernatural, mystical, or superstitious in the reliable part of the tradition. The doctors Democedes and Alcmaeon, the Olympionics Milon and Iccus, the botanist Menestor, the philosophers Hippon and Philolaus, and the mathematicians Hippasus and Theodorus all appear in our sources to be closer to Anaxagoras than to Empedocles. There is no evidence even of their belief in metempsychosis. They are as "normal" as they can possibly be. It is their normality that has strong appeal to me, for if these people were Pythagoras' students and followers then we can learn something important about him and the society he founded. If, furthermore, the Pythagoreans

⁹ L. Zhmud, *Wissenschaft, Philosophie und Religion im frühen Pythagoreismus* (Berlin 1997).

¹⁰ C. A. Huffman, *Philolaus of Croton: Pythagorean and Presocratic* (Cambridge 1993); idem, *Archytas of Tarentum: Pythagorean, Philosopher and Mathematician King* (Cambridge 2005).

¹¹ See L. Zhmud, "Some Notes on Philolaus and the Pythagoreans", *Hyperboreus* 4 (1998) 243–270.

¹² A. Böckh, *Philolaos des Pythagoreers Lehren nebst den Bruchstücken seines Werkes* (Berlin 1819) 3 f.

that we know of were not the superstitious ritualists who adhered to rules that meant they were not permitted to travel on the main roads, use public baths, speak in the dark, step over a yoke, sit on a bushel measure, stir the fire with a knife, etc.,¹³ then who were these ritualists? If they are not to be found, we must abandon the idea that such Pythagoreans ever existed.

To be sure, some of the Pythagoreans known to us did perform miracles of faithfulness for their friends, like Damon and Phintias (Aristox. fr. 31 Wehrli), but this is not a kind of miracle we should worry about. Nor should we worry about the rather abnormal behaviour of the Pythagorean athlete and general Milon: Aristotle calls him *πολυφάγος*, according to the late sources, he devoured about nine kilograms of meat a day and just as much bread and drank ten litres of wine.¹⁴ Now, these stories are not just amusing anecdotes. Taken seriously, they reveal quite an important distinction. Milon, this Pythagorean of the Pythagoreans, behaves in exactly the opposite way than what could be expected of a true follower of Pythagoras. But how do we know what should be expected of a true Pythagorean? In other words: what sources do we use to create a composite image of a true Pythagorean? Are they the same as our sources on the individual Pythagoreans? No, they are not. If we collect everything that is known about the individual Pythagoreans and compare this with what is known about anonymous Pythagoreans, Pythagoreans as a particular collective identity, we get very different pictures. Sometimes even one and the same author produces a different picture: Aristotle's individual Pythagoreans differ radically from his Pythagoreans "in general", this time in terms not of behaviour, but of doctrines.¹⁵ This is one of the many reasons why we ought to be very cautious about the Pythagoreans as a collective identity, for this is the very area of classical tradition where we can expect to encounter the grossest distortions.

In the modern as well as in the ancient world, the stories told about a social, ethnic, or cultural minority are often quite different from the stories told about individuals who constitute these minorities. Though the first are not necessarily false and the second always true, the distinction between them is quite important. If we proceed empirically, our collective portrait of the Pythagoreans should look more or less like a sum total of the traits common to all the individual Pythagoreans plus their specific traits that are irreducible to a common denominator. Certainly, οἱ Πυθαγόρειοι is often just a *façon de parler*, behind which the real figures are discernible, e.g. Archytas, who stands behind the Pythagoreans in Plato's *Republic* (530 a–531 c), or Philolaus, whose astronomical system Aristotle ascribes

¹³ See Burkert (n. 6) 166 ff.

¹⁴ Arist. fr. 520 Rose (cf. *NE* 1106 b 3); Phylarch. *FGrHist* 81 F 3; Athen. X, 4.

¹⁵ Zhmud (n. 9) 268 ff.

to some anonymous Pythagoreans (*De caelo* 293 a 18 ff.). But equally often, the collective Pythagoreans do not correspond to any known individuals, e. g., the Pythagoreans of Anaximander the Younger, or those of Aristotle's *Metaphysics*, or those of Aristoxenus' work Πυθαγορικά ἁποφάσεις. In the last case as well as in Theophrastus' *Metaphysics* (11 a 27–b 10), they are very much like the Platonists. One can dispute these examples and adduce others, but this hardly affects my general thesis: If actions or ideas allegedly peculiar to the collective Pythagorean identity do not find independent confirmation at an individual level, we will stay on safer ground by preferring individual to collective evidence. Accordingly, still more suspicious are those testimonies on the Pythagoreans in general that plainly *contradict* the evidence on the individual Pythagoreans.

Here are some examples, starting with the rules of conduct. The traditional sources on Pythagorean vegetarianism are divided.¹⁶ Some say that Pythagoreans did not eat meat, some that they abstained from particular kinds of meat or particular parts of the animals. On an individual level, strict vegetarianism is not attested, whereas consumption of meat is. This means we should rather conclude that some Pythagoreans did eat meat, even if some others probably did not. Secondly, we look at the doctrines. Aristotle, and after him Theophrastus, and after them the entire later tradition, persistently claim that the core of Pythagorean philosophy is that “all is number”. We do not find this thesis in any of the Pythagorean thinkers, though we find other Pythagorean ideas on number that differ both from the Aristotelian version and among themselves. I believe therefore that “all is number” is an Aristotelian interpretation of various Pythagorean philosophical and scientific ideas.¹⁷ Thirdly, we look at institutions. The story that the early Pythagorean society was divided into μαθηματικοί and ἀκουσματικοί seems to be ineradicable from the scholarly literature,¹⁸ even though this story is found first in Porphyry (*VP* 37) and Iamblichus (*VP* 80–89), and even though the word μαθηματικός is first attested in Plato's *Sophist* (219 c), whereas ἀκουσματικός is first found six centuries later, in Clement of Alexandria (*Strom.* V, 59). There is obviously something persuasive about this story that makes it so enduring. Burkert, who once tried to show that it comes from Aristotle, now admits that this is impossible to prove.¹⁹ Even if this story were a part of the 4th-century

¹⁶ Burkert (n. 6) 180 ff.

¹⁷ Zhmud (n. 9) 261 ff.

¹⁸ See e. g. K. von Fritz, *Mathematiker und Akusmatiker bei den alten Pythagoreern*, Sitzungsberichte der Bayerischen Akademie der Wissenschaften 11 (München 1960).

¹⁹ Cf. Burkert (n. 6) 192 ff.; idem, *Pythagoreische Retraktionen*, in: W. Burkert et al. (edd.), *Fragmentsammlungen philosophischer Texte der Antike* (Göttingen 1998) 314 f.

tradition, we would not find in the 6th or the 5th century any counterparts to the μαθηματικοί as they are described by Iamblichus and even less to the ἀκουσματικοί. Should we believe that these people existed but left no individual trace, whereas their collective portrait was kept secret to be disclosed only by Porphyry? I think it is better to see this story for what it really is: as a construct of the Imperial age.²⁰

Admittedly, the methodological individualism that I am professing is not entirely unproblematic. In a sense, it is easier to follow its alternative, definitional essentialism, i. e., to define and discuss specific Pythagorean qualities or theories. If we speak of the Pythagoreans in general, there is no need to bother about every individual Pythagorean: a deviant case can always be treated as an exception. However, if one starts from the individual level, every single Pythagorean counts. In this case, the question “who is to be counted as a Pythagorean and according to which criteria” becomes crucial. This is not an easy question, and modern research offers widely differing answers. If one believes the late sources, the written Pythagorean tradition starts only with Philolaus, who lived 100 years after Pythagoras. Accordingly, the Pythagoreans before Philolaus did not write books, which means that those who did, e. g. Alcmaeon, Menestor, and Hippon, were not real Pythagoreans.²¹ If one does not trust the late sources, but does trust Plato and Aristotle, the matter does not get any easier, for both of them avoided calling anyone “a Pythagorean”. Neither Philolaus and his students in the *Phaedo*, nor Archytas in the 7th Letter are called Pythagoreans. Was Plato’s teacher in mathematics, Theodorus of Cyrene (43 A 2 DK), a Pythagorean or a friend of Protagoras? Of course, he could be both, but Plato testifies only to the second. Obviously he had his reasons to be reticent. Aristotle’s treatises are quite densely populated with anonymous Pythagoreans and to a lesser degree with individual Pythagoreans. He does mention by name Alcmaeon (*Met.* 986 a 27), Hippasus (*Met.* 984 a 7), Hippon (*Met.* 984 a 4; *De an.* 405 b 2), Philolaus (*EE* 1225 a 30), Eurytus (*Met.* 1092 b 10), and Archytas (*Met.* 1043 a 21; *Rhet.* 1412 a 12, *Pol.* 1340 b 26), but never tells us that they were Pythagoreans.

If one looks not only to the ancient but to the modern authorities as well, the situation appears less dramatic. But in Diels and in the other modern collections of Pythagorean materials, we are faced with another problem: there are too many Pythagoreans. Partly this is because the selection criteria used are either not clear enough or not consistent. Diels does not explain his criteria for considering someone a Pythagorean, though he makes them quite visible, namely, by putting the evidence from Aristoxenus’ catalogue of the Pythagoreans (Iambl. *VP* 267 = DK 58 A)

²⁰ Zhmud (n. 9) 93 ff.

²¹ So Huffman, *Philolaus* (n. 10) 15 f.

at the beginning of part A. Except for one passing remark,²² I did not find any explicit statements that he considered this catalogue to derive from Aristoxenus and thus to be evidence of primary importance, although this is certainly what he thought. Further, Diels does not always follow Aristoxenus. Thus, he places Cercops, Petron, Paron, and Xuphus among the early Pythagoreans, though their names are lacking in the catalogue. I think that he was wrong in all four cases.

According to Aristotle (fr. 75 Rose), the poet Cercops lived in Hesiod's time, so he could not be a Pythagorean.²³ However, Epigenes, a grammarian of the Hellenistic age,²⁴ in his book *On the Writings Attributed to Orpheus*, calls Cercops a Pythagorean and ascribes two poems to him – Ἱερὸς λόγος and Εἰς Ἄιδου κατάβασις (other authors attributed these poems to Pythagoras). This evidence is not very reliable. Orphic poetry was always pseudonymous and there was no way to figure out the names of its real authors. Epigenes' attributions must, therefore, have been guesswork, as was most of the other evidence of this kind. In Cicero the reference to Cercops is linked to a quotation from Aristotle, who claimed that there had never been a poet called Orpheus:

Orpheum poetam docet Aristoteles numquam fuisse et hoc Orphicum carmen Pythagorei ferunt cuiusdam fuisse Cercopis.²⁵

Only the first part of this evidence derives from Aristotle (this is confirmed by a quotation from Philoponus), whereas the second part goes back to Epigenes.²⁶ Aristotle would not call Hesiod's contemporary "a Pythagorean"; more importantly, he never calls anyone "a Pythagorean".

We know about Petron (DK 16) only from one Hippias of Rhegium, whose testimony is quoted by the Peripatetic Phanias of Eresos; it is very likely that this is a forgery.²⁷ Paron (DK 26) owes his existence to Aristotle's mistake in taking the participle ΠΑΡΩΝ to be a proper name.²⁸ Xuphus (DK 33) is mentioned only once in Aristotle's *Physics* (216 b 22). In the

²² H. Diels, *Antike Technik* (Leipzig 1924) 23.

²³ Burkert (n. 6) 114, 130 n. 60; cf. DK I, 106. 6 f.

²⁴ Clem. *Strom.* I, 21, 131. On Epigenes, see L. Cohn, "Epigenes (16)", *RE* 6 (1907) 64–65; cf. I. Linforth, *The Arts of Orpheus* (Berkeley 1941) 110 f., 114 ff.

²⁵ Cic. *De Nat. Deor.* I, 107 = Arist. fr. 7 Rose.

²⁶ W. Kroll, "Kerkops", *RE* 11 (1921) 314; Philop. *In de an.*, 186.21f. = Arist. fr. 7 Rose.

²⁷ See *FGrHist* 554 F 5 with comm.; J. Kerschsteiner, *Kosmos: Quellenkritische Untersuchungen zu den Vorsokratikern* (München 1962) 209 f.; L. Pearson, *The Greek Historians of the West* (Atlanta 1987) 108 ff.

²⁸ Burkert (n. 6) 170; G. Martano, "Il pitagorico Parone o il pitagorico 'presente'?", *Elenchos* 1 (1980) 215–224.

commentary to this passage, Simplicius calls him a Pythagorean but it is impossible to verify his claim.

In Maddalena's and Timpanaro Cardini's work,²⁹ Epicharmus, Ion of Chios, Damon, Hippodamus, Polyclitus, Oenopides, and Hippocrates of Chios are considered to be Pythagoreans. This goes even further than Diels and is absolutely too far. Their names are not found in the catalogue and, moreover, no classical source considers any of them a Pythagorean or even a pupil of the Pythagoreans. Even if Oenopides or Hippocrates studied mathematics with the Pythagoreans, this fact alone does not make them Pythagoreans.

Of the fourth century Pythagoreans on Diels' list, another three have to be removed. Timaeus of Locri (DK 49) owes his existence to the Platonic dialog and, later, to a Pseudo-Pythagorean text.³⁰ Ocellus of Lucania (DK 48) is mentioned in the catalogue, which means that Aristoxenus regarded him as a historical person, but all the doctrines ascribed to him are Pseudo-Pythagorean.³¹ Lastly, the Pythagorean called Lycon (DK 57) is in fact four different people.³² Since it seems unlikely that Lycon of Tarent, as mentioned in the catalogue (57 A 1 DK), will be identified as being the same as the other three persons, what remains of him is merely a name. But we are not interested in mere names, for we have more than enough of them. We are looking for Pythagoreans with characteristic individual features that can be incorporated into our collective portrait.

Why is it so important to look for the sources that explicitly call someone a Pythagorean? Why not employ a doctrinal criterion, as is employed in the case of the other schools? Indeed, a Hellenistic philosopher can be regarded as a Platonist if he is known to belong to the Academy or to profess specifically Academic doctrines. The problem is that the Academy, the Lyceum, and the Stoa were institutionalised schools with definite sets of doctrines, even if different at different times. The Pythagorean school, in contrast, was founded neither as a philosophical school, nor as an institutionalised school at all, but as a political society, *ἐταιρεία*.³³ Besides, Pythagoras' teaching was never written down and the school itself was dispersed both geographically and chronologically, more than any other Pre-Socratic school. This is why we do not and should not expect to find anything resembling a Pythagorean orthodoxy. As long as the

²⁹ A. Maddalena, *I Pitagorici* (Bari 1954); M. Timpanaro Cardini, *I Pitagorici: Testimonianze e frammenti I–III* (Firenze 1961).

³⁰ H. Thesleff, *The Pythagorean Texts of the Hellenistic Period* (Åbo 1965) 202 ff.

³¹ *Ibid.* 124 ff.

³² See *FGrHist* 1110 with comm.

³³ K. von Fritz, *Pythagorean Politics in Southern Italy* (New York 1940); E. Minar, *Early Pythagorean Politics in Practice and Theory* (Baltimore 1942) 19 ff.

Pythagorean school was alive, i. e., up to the mid-fourth century BC, every Pythagorean philosopher developed his own views. Although there were certain similarities in thinking, it is difficult to identify one characteristic feature that was common to *all* Pythagorean thinkers. Interestingly, where we do encounter a Pythagorean orthodoxy, e. g. in the pseudo-Pythagorean literature, it is based on the Academic and Peripatetic interpretations of the Pythagorean ideas, not on the authentic Pythagorean tradition. Therefore the doctrinal criterion turns out to be of a limited value, though not invalid as such. For if we find a common view in the medical theories of Alcmaeon, Hippon, and Philolaus, this can confirm that they belonged to the same tradition, even if this view was not expressed by Hippasus and Theodorus, who were not interested in medicine.

Admittedly, in Pythagorean science, i. e., in the four μαθήματα, the situation looks different. There is such a common body of theories here, and there are many more affinities among the views of different scientists. Yet this consistency is not specifically Pythagorean, it is related to the methods of the respective science. Hippocrates of Chios developed Pythagorean geometry, Archytas solved the problem posed by Hippocrates, and Eudoxus studied geometry with Archytas, but neither Hippocrates nor Eudoxus were Pythagoreans. What is specifically Pythagorean in the exact sciences is the preoccupation with all four μαθήματα, including arithmetic and harmonics. Indeed, before Pythagoras (or, if you prefer, before Hippasus), theoretical arithmetic and mathematical harmonics did not exist; and after Hippasus, the Ionians – Oenopides and Hippocrates of Chios and to a certain degree also Democritus – developed only geometry and astronomy, not the other two branches of the *quadrivium*. This means, among other things, that Theodorus of Cyrene, who is mentioned in Aristoxenus' catalogue and who taught all four sciences (43 A 1, 4 DK), was a Pythagorean and not just a friend of Protagoras. This means, furthermore, that Archytas' predecessors, whose knowledge of all four μαθήματα he praises at the beginning of his work (47 B 1 DK), were the Pythagoreans, and not Hippocrates of Chios or the other Ionian mathematicians.³⁴

This rather long digression was needed, I think, to make clear why the question that I raised earlier – about how a Pythagorean can be defined – should be settled on the basis of reliable classical sources. It is not enough that a person calls himself a Pythagorean, like Lycon, the critic of Aristotle, or the proto-Cynic Diodorus of Aspendus,³⁵ for this is evidence that they were not. But if someone was considered a Pythagorean by his contemporaries or by the Pythagoreans themselves, this means that he was judged by more

³⁴ Pace Huffman, *Archytas* (n. 10) 51 ff.

³⁵ Lycon (57 A 4 DK); Diodorus (Tim. *FGrHist* 566 F 16; Hermipp. fr. 24 Wehrli = *FGrHist* 1026 F 26).

complex and reliable criteria than we can employ now. This means that he shared with the other Pythagoreans not just one but many common features and at that it is these exact features that define a Pythagorean, both from an internal and an external point of view.

Now I come back to Aristoxenus' catalogue of the Pythagoreans. The first person to recognize that this catalogue, which is preserved in Iamblichus' *De vita Pythagorica*, may be by Aristoxenus was Erwin Rohde.³⁶ Diels, as I said, used this document for the Pythagorean chapters of his *Vorsokratiker*, but did not go into detail. Later, Burkert and Timpanaro Cardini briefly commented on the catalogue,³⁷ suggesting that it is based on genuine historical, probably documentary, evidence in that a list of 218 names organised according to 27 cities and nations was not the kind of information that could be transmitted orally. A number of parallels between fragments of Aristoxenus and the catalogue make his authorship quite certain. The evidence Aristoxenus relied on most probably came from those last Pythagoreans with whom he was in contact, namely Xenophilus, Phanton, Echecrates, Diocles, and Polymnastes, the students of Philolaus and Eurytus (fr. 19 Wehrli). Another source of information on the Pythagoreans was his father Spintharus, who belonged to Archytas' circle; he is twice mentioned in Aristoxenus' biographical works (fr. 30, 54 a Wehrli).

What is meant by 'documentary evidence' is not a formal membership list of the Pythagorean society: such a list barely existed, if only because there was never a centralized Pythagorean community. Aristoxenus' list can be regarded rather as a reflection of the collective Pythagorean memory concerning the prominent Pythagoreans of the sixth, the fifth, and the early fourth centuries – prominent not necessarily in philosophy or science, but also in politics, or athletics, or medicine. They were prominent members of Pythagorean communities, dispersed throughout the entire Greek world from Cyrene in Africa to Cyzicus in Asia Minor. Some of them came from different cities to study with a master, be it Pythagoras, Philolaus, or Archytas, but most of them, I assume, remained in their own cities. Of the 218 Pythagoreans on Aristoxenus' list, only about 60 are mentioned in any other sources, the rest are no more than names. Moreover, we only have information that is of any use on about half of this small group of 60. The largest group on Aristoxenus' list (48 names) are all from his home city Tarent; the smallest (2 names) from Katana. There are only eight Pythagoreans in the catalogue, who have no colleagues in the same city, and of these eight at least three are rather dubious figures.

³⁶ E. Rohde, "Die Quellen des Iamblichus in seiner Biographie des Pythagoras" (1871), in: idem, *Kleine Schriften* II (Tübingen 1901) 171.

³⁷ Timpanaro Cardini (n. 29) III 38 f.; Burkert (n. 6) 105 n. 40. See also Zhmud (n. 9) 67 ff.

I would like to point out here that we should approach Aristoxenus' list critically, like any other historical document, especially taking into account that it comes from Iamblichus, who lived 600 years later. Though it does not contain the names of the individuals who lived after Aristoxenus, it is possible that some of the famous names on the list were added later, after Aristoxenus. Being on the list does not guarantee that the person in question really was a Pythagorean. In several cases, doubt remains and on occasion there is evidence to warrant deleting a person from the list. However, if there is no evidence to this effect, we can consider the data of the catalogue to be a sufficient proof that the person in question can be seen as a Pythagorean.

Though it is our most important document, the catalogue is by far not the only one. Theophrastus mentions Hicetas of Syracuse (50 A 2 DK), who is not on the list, whereas his compatriot Ephantus is wrongly placed among the Pythagoreans from Croton (DK I, 446. 11). Pythagoras' contemporary, the famous Crotonian doctor Democedes, who married a daughter of the Pythagorean athlete Milon (Hdt. 3, 127–137 = 19 A 1 DK), is not on the list either. Obviously, in the course of catalogue's transmission, some names have been lost. For example, Aristoxenus' father Spintharos is absent, as well as Amyclas, though Aristoxenus mentions both him and his friend Cleinias (fr. 131 Wehrli), who is on the list. Absent from the list are also Philolaus' students Simmias and Cebes (44 A 1 a, B 15 DK). The name of Parmenides' teacher, the Pythagorean Ameinias, appears only in the Hellenistic biographer Sotion (D. L. 9, 21 = 28 A 1 DK). These significant names need to be added (as "pluses") to the catalogue.

On the other hand, the catalogue contains some names that clearly should be removed – "minuses". For example, the ancient lawgivers Zaleucus of Locri and Charondas of Catane who seemed to be associated with Pythagoras by the Pythagorean communities in Locri and Rhegium as early as the 5th century. This means that Aristoxenus' sources (fr. 17, 43 Wehrli) reflect a respectful but unreliable historical tradition. Another famous duo are the miracle-workers, Aristeas and Abaris. Aristeas of Proconnesus, a shadowy figure from the late 7th century BC, was the author of the *Arimaspea*, a poem describing his journey in search of the Hyperboreans. During his lifetime, Aristeas disappeared twice, and, according to Herodotus (4, 13–15), after the second time he reappeared 240 years later in Metapontum and told the citizens to set up an altar to Apollo and dedicate a statue to himself. In the catalogue, he is duly registered among the Pythagoreans from Metapontum. Abaris, the mythical priest of Apollo and the expert on the Hyperboreans is listed in the catalogue as the only representative of these legendary people. As Bolton showed, Aristeas and Abaris were associated with Pythagoras in the 5th-century legendary tradition and later in Heraclides Ponticus' fantastic

dialogues,³⁸ so that Aristetas' miraculous powers, such as bilocation, were transferred to Pythagoras. Thus, in this case too, the legendary and the historical tradition overlap.

Parmenides and Empedocles are also the sole representatives of their cities. There seem to have been no Pythagorean communities in Elea and Agrigentum, which means that in this case we can speak only of the Pythagorean teachers of Parmenides and Empedocles. In the biographical tradition, both of them appear as students of the Pythagoreans.³⁹ This could be the reason for including them in the catalogue, although we do not know whether this attribution came before or after Aristoxenus. The influence of Pythagorean ideas on Parmenides and Empedocles is undeniable, but both these philosophers are too independent and significant to be seen as completely integrated into Pythagorean tradition. Rather, they should continue to be considered as Pythagorean sympathizers. The next and the last name to be removed is Melissus, who is named together with five other Pythagoreans of Samos. If there was a Pythagorean community on Samos, he could have been a member even if, in terms of philosophy, he followed Parmenides and Zeno. But to be certain we should strike him from the list, for there is no need to be greedy.

After all these additions and subtractions, we can begin to make a preliminary analysis. The first four generations of Pythagoreans (i. e. people born between 560 and 470 BC) with, at least to some extent, discernible personalities can be placed in the following overlapping categories. First, the politicians, which is the largest category containing the majority of the names in the catalogue. Among the most prominent of them is Milon, who won a battle against Croton's neighbour Sybaris around 510 BC.⁴⁰ This victory made Croton the dominant city in Southern Italy and, as the coins show, the neighbouring Pandosia, Temesa, and Caulonia also became the dependent "allies" of Croton.⁴¹ The conquering of Sybaris caused a conflict within the ruling Crotonian aristocracy, which led to Pythagoras' flight to Metapontum. Aristoxenus describes this conflict as a plot against Pythagoras, who had once refused the rich aristocrat Cylon admittance to the Pythagoreans and thus made him his enemy (fr. 18 Wehrli). Aristotle confirms the personal rivalry between Cylon and Pythagoras and mentions another rival of Pythagoras, Onatas (fr. 75 Rose), who is listed among Crotonian Pythagoreans (DK I, 446. 13). As the arch-enemy of Pythagoras, Cylon is not on the list, but if he really

³⁸ J. Bolton, *Aristetas of Proconnesus* (Oxford 1962) 151 ff.

³⁹ Empedocles (Alcidam. ap. Diog. Laert. 8, 56 = 14 A 5 DK; Theophr. 227 AFHSG = 31 A 7; Tim. *FGrHist* 566 F 14); Parmenides (Sotion ap. Diog. Laert. 9, 21 = 28 A 1).

⁴⁰ Diod. 12, 9, 2–10, 1; Strab. 6, 1, 12–13 (both from Timaeus).

⁴¹ Von Fritz (n. 33) 80 ff.; Minar (n. 33) 36 ff.

was the Crotonian exarch of the Sybarites, as Iamblichus says (*VP* 74), he must have been a Pythagorean.⁴² Anyway, we know that political conflict also took place within the Pythagorean society: Hippasus, for example, sided with Pythagoras' enemies, while Democedes remained Pythagoras' supporter (Iambl. *VP* 255 f. = 18 A 5 DK).

In the case of Hippasus and Democedes we have two prominent Pythagorean intellectuals who were politically active, as good citizens were supposed to be. Milon was very successful both in politics and in athletics, which leads us to our second category of the Pythagoreans: the athletes. From 532 to 488 BC, Croton achieved an extraordinary series of victories in the Olympian Games.⁴³ The catalogue gives us the names of four Olympic victors: Milon, Astylus, Dicon, and Iccus (DK I, 446, 14. 20. 28; 447, 14). There is no doubt that there were many more. And there is no need to prove the importance of athletics for the ethos of the ruling Italian aristocracy. We can safely assume that many of the Pythagorean athletes were also politically active, as was the case with Milon. Athletics was connected with the aristocratic way of life, but it was also closely linked to medicine.

This brings us to our third category, the doctors. This group is smaller than the politicians, but is very important group in terms of understanding the role of the natural sciences in ancient Pythagoreanism. Iccus of Tarent won in the pentathlon in 476 BC and later became a athletics coach and famous doctor (DK 25). He specialized in dietetics and gymnastics and won Plato's praise for his wisdom and temperate way of life. Democedes (19 A 1 DK) and Alcmaeon were two other prominent representatives of Crotonian school of medicine that stressed the importance of dietetics and gymnastics in maintaining good health.⁴⁴ The botanical book of Menestor was related to medicine (DK 32), just as the natural-philosophical writings of Alcmaeon (24 A 1, B 4 DK) and later of Hippon (38 A 11 DK).

Our fourth category is natural philosophers, φυσικοί, according to the Aristotelian terminology. Here we have Alcmaeon, Brontinus, who was one of the addressees of Alcmaeon's book (24 B 1 DK), Hippasus (18 A 1, 12 DK), and Menestor. Among those born around 480–470 BC, there are two other φυσικοί, Hippon and Philolaus.

The fifth category is μαθηματικοί, i. e., people concerned with any of four μαθήματα or with all of them. Strangely enough, we know the names of only two mathematicians from the first 100 years of the Pythagorean

⁴² Minar (ibid.) 69 f.; M. Giangliulo, *Ricerca su Crotone arcaica* (Pisa 1989) 311 n. 52; M. Bugno, *Da Sibari a Thurii: La fine di un impero* (Napoli 1999) 41 f.

⁴³ C. Mann, *Athlet und Polis im archaischen und frühklassischen Griechenland* (Göttingen 2001) 164 ff.

⁴⁴ See Zhmud (n. 9) 231 ff.

school: Hippasus (18 A 4, 14–15 DK) and Theodorus (43 A 3–5 DK). There is no doubt that there were many more, because by the time when Oenopides and Hippocrates of Chios were active, i. e., about 450–430 BC, the bulk of the first four books of the future *Elements* of Euclid had already been written,⁴⁵ which was an impossible feat for only one or two people. Regrettably, we cannot identify the other μαθηματικοί. For example, Parmenides' teacher Ameinias could be a φυσικός, or a mathematician, or both. Alcmaeon was interested in astronomy (24 A 4, 12 DK), but certainly was not a μαθηματικός. Philolaus fits this term much better, especially as an astronomer and a specialist in harmonics (44 A 16–21, B 6 DK).

So far we have identified 14 prominent Pythagoreans belonging to five overlapping categories. Now, let us imagine that we know nothing about Pythagoras himself and all we have is a collective portrait of his students and followers and the students of these followers. What would an individual portrait of Pythagoras look like if we had to construct it solely on the basis of the available collective portrait? I believe it would be both natural and legitimate to assume that he had something to do with activities that, already during his lifetime, became so distinctive to the Pythagorean society. Surely, we should not expect a perfect match, because for all his πολυμαθία (Heracl. 22 B 40) and πολυτροπία (Antisth. fr. 51 Caizzi), Pythagoras could not be involved in all these activities. But he would certainly have worked in some of these fields and would have encouraged others.

Where then is the other side of Pythagoreanism: religion, magic, mysticism, shamanism, ritual taboos, and so on? If Pythagoras was a guru, as Riedweg suggests, where have all the other gurus gone? Did I miss someone from the list? No, I did not. Then, could it be that Aristoxenus' rationalistically-minded teachers struck all the gurus off the list? I do not think so. In fact, they added two miracle-workers, even though one of them, Aristeas, lived a century before Pythagoras, while the second, Abaris, was imaginary. The only other guru on the list would be Empedocles, if we concede that he was a Pythagorean. There was also Brontinus (DK 17), who was regarded by Epigenes as the author of two Orphic poems, namely, Πέπλος and Φυσικά (DK 15). In the mid-fifth century, Ion of Chios asserted that Pythagoras was the author of some Orphic poems (36 B 2 DK), and his remark triggered all the further attributions. It is misleading to present the early Pythagorean society as a kind of workshop specialized in producing Orphic poems, as West did.⁴⁶ The more we know about Orphism, the more

⁴⁵ E. A. Neuenschwander, "Die ersten vier Bücher der Elemente Euklids", *AHES* 9 (1973) 325–380.

⁴⁶ M. L. West, *The Orphic Poems* (Oxford 1981) 7 ff.

visible is its profound difference from Pythagoreanism. But even granted that Brontinus was the author of some religious poems, this did not stop him from being a doctor, or a natural philosopher, or a politician, as Empedocles' case shows.

Speaking about Empedocles in more appropriate ancient terms, he was not a guru, but a 'divine man', θεῖος ἀνὴρ,⁴⁷ exactly like Pythagoras before him. However, in contrast to Empedocles, of whose followers we know nothing, Pythagoras founded a political society that outlived him at least for 50 years and a school that existed till the mid-fourth century. Both Pythagorean politicians and Pythagorean philosophers and scientists took from him what they were interested in and what they valued most. Incidentally, these interesting and valued things did not seem to include magic, mysticism, and a variety of ritual taboos; at least, taboos are not attested on the individual level and quite poorly at the collective level. Herodotus says that Orphics and Pythagoreans did not bury people in woollen clothes (2, 81). There were some other attested taboos, for example, prohibiting certain kinds of meat and fish (Arist. fr. 194 Rose), or beans (cf. Emped. 31 B 136–141 DK), although really we do not know how rigorously these rules were observed. Anyway, there was nothing to fire the imagination in these regulations and nothing that would make a religious sect of the Pythagorean society.

What is then the basis for the widespread idea of a Pythagorean sect?⁴⁸ Putting aside Iamblichus' ἀκουσματικοί, there are the Pythagorean σύμβολα, attested first in Anaximander the Younger (58 C 6 DK) and after him in Aristotle (fr. 194–196 Rose). If the σύμβολα were strictly followed, if they constituted that very "Pythagorean way of life" that was approvingly mentioned by Plato (*Resp.* 600 a), then the Pythagoreans were indeed superstitious ritualists and their society was a sect. I think, however, that there are plenty of reasons why this can not be the case. It is anachronistic to speak of a "sect" in archaic Greece. There were no sects at this time; there were other religious and cultic communities, like θίασοι or associations of ὄργεῶνες. Pythagorean society was neither of them, it was a political ἐταιρεία. At no time do we know of any specific Pythagorean cults or deities; their religion was the traditional polis religion. Pythagoras' only known religious innovation was metempsychosis, but even this was borrowed from Orphism along with several prescriptions that follow from this doctrine. The so-called Pythagorean σύμβολα contain almost a hundred prescriptions that are hard to understand and much harder to

⁴⁷ For important qualifications of this notion, see D. S. Du Toit, *Theios Anthropos* (Tübingen 1997).

⁴⁸ W. Burkert, "Craft versus Sect: The Problem of Orphics and Pythagoreans", in B. F. Meyer (ed.), *Jewish and Christian Self-Definition 3* (London 1983) 1–22.

follow.⁴⁹ If we compare them to the strictest charters of the real religious communities, like the Jewish Essenes or the early Christian monastery of St. Pachomius, we immediately see the difference between religious discipline and religious folklore. Neither the Jewish nor Christian charters contain any nonsense: every rule is clear and quite logical in the given environment; all of them are enforced by various punishments for those who fail to follow them, so that we can see a real even though severe life behind them. What kind of life stands behind the σύμβολα?

To take the ἀκούσματα seriously means an almost frightening constriction of one's freedom in daily life. Whether a Pythagorean gets up or goes to bed, puts his shoes on or cuts his nails, stirs the fire, puts on the pot, or eats, he always has a commandment to heed. He is always on trial and always in danger of doing something wrong.⁵⁰

To appreciate properly this impressive but anachronistic picture, it is crucial to understand that none of its elements correspond to the stories told either about individual Pythagoreans or about Pythagoreans in general. This picture emerges only if we put together all the *sayings* contained in the σύμβολα that were collected by Anaximander. But when interpreting sayings, we are dealing with folklore, not with reality. There is no doubt that Anaximander dealt with folklore too, for he did not describe the *way of life* of any (named or anonymous) Pythagoreans. He collected what he took to be the 'Pythagorean' sayings and maxims and interpreted them *allegorically*, i. e., according to one of the methods of literary criticism available at that time.⁵¹ If he knew of a real Pythagorean who did not break bread or step on nail parings, why did he interpret these taboos allegorically? Aristotle believed that the taboos were originally literal (fr. 195 Rose), which seems very plausible, but he too had never heard of a Pythagorean really observing them. Except for a few dietary prescriptions and burial customs, all the other taboos appear only in the context of interpreting 'Pythagorean' *sayings*. Nobody would think that by interpreting the sayings of Solon or any other of the Seven Sages one could get closer to them as historical figures. It is clear that distinguishing between folklore and historical reality is a vital condition in Pythagorean studies.

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⁴⁹ On *symbola* see: C. Hölk, *De acusmatis sive symbolis Pythagoricis* (Diss. Kiel 1894); F. Boehm, *De symbolis Pythagoreis* (Diss. Berlin 1905); A. Delatte, *Études sur littérature pythagoricienne* (Paris 1915) 271 f.; Burkert (n. 6) 166 ff.

⁵⁰ Burkert (n. 6) 191.

⁵¹ He also interpreted allegorically the Homeric poems (Xen. *Symp.* 3, 6).

Античная традиция о Пифагоре весьма противоречива, как противоречива и его личность. Пифагор претендовал на обладание сверхъестественными свойствами и был тем типом личности, которая притягивала к себе легенды, даже такие, которые первоначально относились к другим, менее знаменитым чудотворцам. В отличие от Пифагора, никто из известных нам древних пифагорейцев не связан в надежной части традиции с чем бы то ни было сверхъестественным или чудесным. Непохожесть пифагорейцев на Пифагора бросается в глаза и вызывает естественные вопросы: действительно ли они были его учениками и последователями, и почему мы не находим среди них ни одной религиозной фигуры, хотя бы отдаленно напоминающей Пифагора? Если именно эти люди, известные нам по именам, были пифагорейцами, и никаких других обнаружить не удастся, тогда мы можем многое узнать и о самом Пифагоре, и об обществе, которое он основал. В этом случае Пифагор, соединявший в себе слишком многое, может оказаться исключением среди пифагорейцев, воспринявших лишь ту часть его наследия, которая соответствовала их собственным склонностям и интересам.