

PYTHAGOREANISM IN THE EARLY ACADEMY: THE QUESTION OF APPROPRIATION

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Since Walter Burkert's monumental *Lore and Science in Ancient Pythagoreanism* (1972, orig. published in German in 1963), it has been a commonplace for scholars to assume that Pythagoreanism was first refracted through the lens of Platonism in the Early Academy.¹ Burkert arrived at this conclusion by way of a careful analysis of the accounts that associated Pythagorean and Platonic first principles, especially those found in Theophrastus' *Metaphysics* as well as those that appear to have been derived, at least in some form, from Theophrastus' lost doxographical writings.² As Burkert argued, the information about Plato and the Pythagoreans preserved by Theophrastus, when compared with the fragments and testimonies of the Early Platonists Speusippus of Athens, Xenocrates of Chalcedon, and Heraclides of Pontus, exhibited notable differences from Aristotle's account of the similarities in the *pragmateia* of Plato and the "so-called" Pythagoreans, which led Burkert to speculate that Theophrastus may have had sources at hand other than Aristotle when developing his proto-doxographical reports. In particular, Burkert argued that Speusippus was the source of Theophrastus' "non-Aristotelian conception of Pythagorean doctrine" and that Speusippus and Xenocrates had, indeed, met Pythagoreans when they traveled to Sicily with Plato on his third voyage, in 361/360 BCE.³ Most scholars have, in one way or another,

¹ Erich Frank had made this conjecture forty years before (cf. Burkert 1972: 63 n. 61, citing Frank 1923: 260. Zhmud (2012: Ch. 12) has attempted to refute Burkert's arguments, arguing instead that Plato was seen as "not a continuer of Pythagoreanism, but a sovereign thinker and organiser of science...that was how Plato was seen by his faithful pupils" (2012: 420).

² Burkert 1972: 63-82. In particular, Burkert pointed to connections between Thphr. *Metaph.* 11a27ff. and the Latin translation of Proclus' *Commentary on the Parmenides* (38ff.), but there have been many doubts about the extent to which the latter text can be said to preserve anything original to Speusippus. On the scholarly reception of Burkert's claim, which has largely been negative, see Zhmud 2012: 424-425.

³ Burkert 1972: 64 and 47 with n. 102, citing Plutarch (*Dion* 22) and Timaeus of Tauromenium (FGrHist 566 F 158).

accepted Burkert's broader claim – that the Early Academy is in great part responsible for some strands of the Plato-Pythagoreanism connection evinced in the doxographical traditions – as well as the more particular claim that Speusippus is the source-text for Theophrastus' 'non-Aristotelian' Pythagoreanism.⁴ In an article that I have recently written, forthcoming with *Classical Quarterly*, I challenged Burkert's more particular claim by arguing that it was Xenocrates, and not Speusippus, whom Theophrastus was reading when he described the first principles of 'Plato and the Pythagoreans' as the 'Indefinite Dyad' and the 'One' (**the passage is number 1 on your handout**). The project in that article was essentially source-criticism, which, for anyone working on the Early Academy or the Pythagoreans, constitutes a *sine qua non*. By comparing metaphysical 'doctrines' ascribed to Xenocrates by Proclus and others with the account of the Platonic and Pythagorean first principles in Theophrastus' *Metaphysics*, I sought to show that it was Xenocrates who was responsible for appropriating 'Pythagorean' principles to 'Platonic' ideas; correlatively, I also aimed to demonstrate that this passage could not have originated with Speusippus, or, for that matter, with any other Platonist who sought to establish the *dogmata* of Plato, such as Hermodorus of Syracuse.

There are at least two problems concerning the Early Academy and Pythagoreanism which my article was not able to address: first, what do we mean when we speak of members of the Early Academy 'appropriating' Pythagorean thought; and second, is there a unified, or are there diverse, ways of 'appropriating' Pythagorean thought. In this paper, I try to tease out, from the very few references that we have, what exactly we mean when we speak of figures in the Early Academy 'transmogrifying'⁵ the Pythagorean tradition in a

⁴ Cf. Riedweg 2005: 116-119 and Kahn 2001: 63-66.

⁵ Burkert 1972: 97.

Platonist vein, and whether or not – even in a single figure such as Xenocrates – we can detect a unified approach to Pythagoreanism. I will advance upon these issues by way of comparative contextualization with the modes in which other intellectuals in Athens reacted to or evaluated the Pythagorean *acusmata* (also called *symbola*), that is, the question-and-answer precepts apparently handed down by Pythagoras.⁶ I will examine critical responses to Pythagoreanism by the associates of Socrates Antisthenes of Athens and Aristippus of Cyrene in brief, before moving on to discuss at greater length the approaches of Anaximander the Younger of Miletus and Aristotle, followed by a brief summary of my thoughts on Plato and Pythagoreanism, and concluding by looking at Xenocrates' fragments and testimonia. This project will try to shed some light on the exegetical and appropriative activities of one Early Platonist, Xenocrates, with regard to Pythagoreanism, in order to lay the groundwork for further investigation for how other associates of the Early Academy might have developed more elaborate approaches to Pythagorean thought.

By speaking about the appropriative activities of Plato and the associates of the Early Academy concerning Pythagoreanism, I do not wish to imply that it is with Plato that we have the earliest evidence of critical response to Pythagoreanism attested in Athens. It is possible, although it remains hotly disputed, that Pythagoreanism lay in the cross-hairs of Aristophanes when he produced the first version of the *Clouds* (423 BCE), as well as behind some of the bold heurmatographical claims of Prometheus in the sophistical *Prometheus Bound* (probably produced in the 430s or 420s).⁷ If Herodotus is to be considered an

⁶ Pace Zhmud (2012: 169ff.), I will follow the modern scholarly tradition by referring to those questions that answer the questions “what is?”, “what is to the greatest degree?”, and “what ought to be done?” as *acusmata*, although it is certainly possible that they were, in their earliest presentation, called *symbola*.

⁷ It is in this light that we should see the association of the ‘Pythagoreans’ with the ‘Anaxagoreans’, given by the writer of *Dissoi Logoi* 6, by reference to the teaching of virtue (ἀρετή) and wisdom (σοφία), respectively. As Zhmud notes (2012: 48), a similar modality (a way of life [βίος] and mien [σχῆμα], and

indicator of what held in the popular imagination of Athenians in the late 5th Century BCE, Pythagoreanism could be associated with Orphic-Bacchic initiates, as well as Egyptians, an association that still remained with Isocrates nearly half-a-century later.⁸ What I am to discuss today is not the Athenian popular imaginary *per se*, but rather the attempts by certain intellectuals in Athens to make Pythagorean concepts meaningful or useful – usually by some sort of critical activity that we might, more generally, call ‘appropriative’. From the very earliest sources in Athens, in fact, we see diverse approaches to the ‘appropriation’ of Pythagoreanism: the Socratic philosopher Antisthenes of Athens, who celebrated the rhetorical dexterity of Pythagoras, and who cast him as a figure whose activities exemplified the claim that ‘to discover the mode of wisdom appropriate to each person is the mark of wisdom’ (τὸν γὰρ ἐκάστοις πρόσφορον τρόπον τῆς σοφίας ἐξευρίσκειν σοφίας ἐστίν) (**passage 2 on your handout**).⁹ Here, Pythagoras’ civic performances in Croton – whatever historical veracity they might obtain – seem to be elicited in order to demonstrate his exemplarity as an orator, a πολύτροπος who, like Odysseus, is able to intuit the best way to speak to his audience, and tailor his speech accordingly.¹⁰ This, according to Antisthenes, is a sort of higher order wisdom in itself, under which fall other sorts of wisdom. But even from the earliest response to Pythagoreanism, in the dialogues of the Socratic Antisthenes, we can see

the study of nature [φυσιολογία] is associate with Pythagoras and Anaxagoras, respectively, by Alcidas in his lost *Physics* (ap. D.L. VIII. 56).

⁸ Hdt. 2.81 and Isoc. *Bus.* 28, on which see Horky 2013a: Chapter 4.

⁹ V A 187 SSR. Cf. Zhmud 2012: 46-47.

¹⁰ Of course, this tradition tends to be associated with Socrates more broadly, if we are to see in the discussion of legitimate rhetoric as ‘leading the soul’ (ψυχαγωγία) in Plato’s *Phaedrus* (271a-272b) as Socratic.

that Pythagorean wisdom was, itself, inherently thought to be *appropriable to the object of its persuasion*.¹¹

The fact of the appropriability of Pythagoreanism to its audience, evident in Antisthenes' fragments, might help to explain why Pythagoreanism was so open to diversity of interpretation in the intellectual culture of late 5th-Century BCE Athens. Indeed, other intellectuals within the circle of Socrates were approaching Pythagoreanism with what might seem to us to be more exotic exegetical strategies. Another associate of Socrates, Aristippus of Cyrene, also focused on Pythagoras' disclosure of the truth, but he cleverly employed an explanatory strategy based in allegorical etymologization of the sort found in the Derveni Papyrus and Plato's *Cratylus*.¹² In a work entitled *On the Natural Scientists*, Aristippus claimed (**passage 3 on your handout**):

...he was named Pythagoras because he, no less than the **Pythian**, **orated** the truth."

Πυθαγόραν αὐτὸν ὀνομασθῆναι ὅτι τὴν ἀλήθειαν ἠγόρευεν οὐχ ἥττον τοῦ Πυθίου.

(D.L. 8.21 = SSR IV A 150)

This strategy of interpretation of Pythagoras' name, which was associated with riddling speech elsewhere in this period, is all the more striking given Aristippus' refusal elsewhere to 'solve a riddle' (λύσον αἴνιγμα), on the grounds that it already offers us enough trouble in its current 'bound-up' state (δεδεμένον).¹³ Was Aristippus joking in the first case, or being

¹¹ The tradition that associates Pythagoras with excellence in oratory remains strong throughout the 4th and early 3rd Centuries BCE, being adopted by Dicaearchus (F 33 Mirhady) and Timaeus of Tauromenium (*apud* Justin 20.4), and extensively elaborated upon by Iamblichus' source (Timaeus?) at *VP* 37-37.

¹² On allegorical exegesis in the Derveni Papyrus and its relationship to etymological exegesis in the *Cratylus*, see, *inter alia*, Struck (2004: 29-59).

¹³ D.L. 2.70 = SSR IV A 116.

flippant in the second? Perhaps Aristippus was aping a method of allegorical interpretation practiced by natural scientists of the stripe of someone like Metrodorus of Lampsacus, who was associated with Anaxagoras and the φυσικὴ πραγματεία in the traditions, and who engaged in forms of metonymical explanation of Homeric characters, both human and divine.¹⁴ We cannot be sure.¹⁵ Be that as it may, this testimonium shows that etymologization was a *possible* vehicle for explaining what the name Pythagoras – and potentially, by extension, Pythagoreanism – meant to some late 5th and early 4th Century BCE intellectuals engaged in current methods of critical analysis.

A rough contemporary of the Socratics Antisthenes and Aristippus who may have approached Pythagoreanism from a very different angle, was Anaximander the Younger of Miletus, whose *floruit* was around 400 BCE.¹⁶ With Anaximander the Younger, we have an attempt to collect the Pythagorean *acusmata* later described by Aristotle as those which answered the question “what ought to be done” (τί πρακτέον). Our evidence is slim but very important (**passage 4 on your handout**):

[Anaximander] wrote an *Explanation of the Pythagorean Symbols*, of which some examples are, “do not overstep the yoke”, “do not poke fire with a knife”, “do not eat a loaf of bread whole”.

ἔγραψε Συμβόλων Πυθαγορείων Ἐξηγήτησιν. οἷόν ἐστι τὸ ‘ζυγὸν μὴ ὑπερβαίνειν’ ‘μαχαίραι πῦρ μὴ σκαλεύειν’ ἀπὸ ὀλοκλήρου ἄρτου μὴ ἐσθίειν’ καὶ τὰ λοιπά.

¹⁴ DK 61 F 2, 4, and 6.

¹⁵ Probably, much rides on what it means to ‘solve’ a ‘riddle’, which is difficult to contextualize for Aristippus. Boys-Stones and Rowe (2013) note that Socrates apparently refused to split hairs by appeal to eristics of the sort practiced by Eubulides, and that Antisthenes (DK 29 A 15, not in SSR), when presented with Eleatic arguments that being is unmoved, walked around rather than try to solve the five arguments given by Zeno, considering proof ‘through activity’ (διὰ τῆς ἐνεργείας) more concrete than proof ‘through arguments’ (διὰ λόγων).

¹⁶ Cf. Burkert 1972: 166 with nn. 2-3.

What we hear from Xenophon is that this Anaximander the Younger was a rhapsode who, in some way comparable with Stesimbrotos of Thasos, engaged in exegesis of Homer for a fee.¹⁷ In Plato's *Ion* (530c1-6), the ideal rhapsode's exegesis takes the form of being an 'interpreter' (ἑρμηνεύς) of the 'intention' (διάνοια) of Homer, a description to which I will return at the end of this presentation.¹⁸ We should, I suspect, not push the association of Anaximander the Younger with Homeric rhapsodes too far: there is no explicit evidence that Anaximander the Younger engaged in *allegorical* exegesis of Homeric *lemmata*, characters, etc., in the ways that figures like Stesimbrotos and Theagenes of Rhegium seem to have done; and the 'explanations' that do survive for these three *acusmata* are rather pragmatic in effect: (a) "do not overstep the yoke" is interpreted by Diogenes Laertius (8.18) as "don't overstep the boundaries of equality and justice"; likewise (b) "do not poke fire with a knife" is interpreted by Diogenes (*ibid.*) as "do not provoke the anger of great men"; and (c) "do not eat a loaf of bread whole" is interpreted by Hippolytus (*Refutatio* 6.27.5) as "do not lose your possessions, but live on the profit they offer, and preserve your possessions as a whole loaf".¹⁹ With this information in mind, we might reconsider the significance of the epithet most commonly

¹⁷ In this vein, it is interesting to note that Balthussen (2007: 252) confuses Anaximander the Younger with Stesimbrotos.

¹⁸ On these terms, see especially Nagy 2002: 29-30.

¹⁹ It is not necessary to assume that Diogenes and Hippolytus have preserved Anaximander's explanations, but it is notable at least in the case of Diogenes that he lists the precepts by calling them "symbols" (8.17: τὰ σύμβολα τὰδε), the term used by Anaximander, rather than the Aristotelian *acusmata*. Zhmud speculates that the mysterious Androcydes is the source here, but without argument (2012: 72 n. 50). Note also that Porphyry (*VP* 42) preserves slightly different explanations for (a) and (b): (a) means "do not be voracious", and (b) means "do not excite a man swelling with rage with sharp language". Iamblichus exhibits far more detailed explanations for (a) (*Protr.* 21, 114.20-28 Pistelli) and (b) (*Protr.* 21, 112.24-113.7 Pistelli), and hints at even more vividly philosophical interpretations in his lost *On the Symbols* (cf. *Protr.* 21, 112.2-8 Pistelli). Explanation for (c) only appears in Hippolytus, and this led Delatte (1915: 286) to suspect that Hippolytus and Suidas had Anaximander the Younger, whereas other collections (such as that of Porphyry) came from the Androcydes tradition.

assigned to Anaximander the Younger by later sources, namely “historian” (ιστορικός).²⁰ As Marek Węcowski has argued, the *Heroologia* of Anaximander (FGrHist 9 F 1 and probably F 2) exhibits the qualities of an Ionian historian like Hecataeus of Miletus, that is, it imitates Hecataeus both in its use of paratactic stylistics and archaism and takes as its subject matter genealogies.²¹ With Anaximander the Younger’s *Explanation of Pythagorean Symbols*, then, I suspect we are better served to imagine a historical work of the sort associated with Hippias of Elis and, later on, Aristotle himself.²² In **passage 5 on your handout**, Hippias claims to have “collect[ed] the most important things [said?]” (τὰ μέγιστα [λεγόμενα?] συνθεῖς) that he found in the sayings of Orpheus, Musaeus, Hesiod, Homer, as well as other prose writers and poets, both Greek and non-Greek, which he considered “kindred” (ὁμόφυλα).²³ This word suggests, I think, a rather encyclopedic activity of classification of ideas according to similar type.²⁴ If we return to Anaximander with this intellectual context for the selection and organization of prior knowledge, we can imagine the possibility that the activity of collecting the enigmatic Pythagorean “what ought to be done” (τί πρακτέον) *acusmata*, would correspond well to Hippias’ own historiographical practice, *viz.* the selection and

²⁰ FGrHist 9 T 1 (Suda) and T 2 (D.L. 2.2).

²¹ Węcowski 2012.

²² Important here is the notion that Ἐξήγησις and the verb related to it ἐξηγήομαι have a rather wide semantic range in the second half of the 5th Century BCE. For Thucydides (1.72), the abstract noun is contrasted with ὑπόμνησις (recollection) and refers quite simply to new information to be explained to someone lacking knowledge of it (cf. the intellectual activity of Themistocles at 1.138). Herodotus, who does not use the nominal form, employs the verbal construction somewhat frequently, with meanings including: (a) ‘divulge how to do something’ (6.135, by reference to the traitorous activity of the underpriestess of the Parians, who told [ἐξηγησαμένη] their enemies how to bring about their ruin, and who *additionally* is said to have revealed the mysteries [ἄρρητα ἰρὰ ἐκφήνασσα] to Miltiades); (b) ‘depict’ (1.36, *viz.* probably Hecataeus of Miletus’ map of the known world); and (c) ‘set out in detail’ an argument (9.122). But also see Owen’s compelling suggestion (1975: 163 n. 6) that someone in the tradition has confused Zeno of Elea with the Stoic Zeno of Citium.

²³ FGrHist 6 F 4 = Clem. *Strom.* 6.15.1-2 = DK 86 B 6. One wonders if this activity might have been anticipated, in some way, by Pythagoras’ production of “a wisdom of his own” (ἑαυτοῦ σοφίη) by way of “selecting those writings” (ἐκλεξάμενος ταύτας τὰς συγγραφάς) in his practice of *historia*, as Heraclitus seems to have alleged (DK 22 B 129).

²⁴ This word was used by Philolaus by reference to the dissimilarity of the ἀρχαί of the universe (F 6 Huffman) as well as in reference to Democritus’ principle of ‘like knowing like’ by Theophrastus (DK 68 A 135.50). See Huffman 1993: 138.

classification of “most important things” to be found in the sayings and writings of exemplars of wisdom such as Orpheus, Musaeus, Hesiod, and Homer. To apply a bald anachronism from Aristotle, we might thus describe Anaximander the Younger’s approach to the Pythagoreans as dialectical, in the sense that it undertook *a basic classification* of the received tenets of the Pythagoreans and *developed critical responses* to them accordingly.²⁵

Following in the footsteps of Anaximander the Younger is Aristotle, who can be safely credited with further elaboration in the classification of and response to the Pythagorean *acusmata*. Unlike the evidence for Anaximander the Younger, which focuses on prohibitions only, Aristotle differentiates *three* classes of *acusmata* which answer three diverse questions: (a) “what is?” (τί ἔστι), (b) “what is to the greatest degree?” (τί μάλιστα), and (c) “what ought to be done?” (τί πρακτέον). In **passage 6 on your handout**, we see Iamblichus’ version of Aristotle’s division, as preserved in *On the Pythagorean Life*:

The philosophy of the *acusmatici* consists of *acusmata* undemonstrated, i.e. lacking a rationale, e.g. ‘one ought to do in this way’; and other *acusmata*, as many as were said by that man [i.e. Pythagoras], these they [i.e. the *acusmatici*] attempt to preserve as the divine doctrines. Neither do they pretend to be speaking for themselves, nor ought one do so, but even among themselves they suppose that those who grasp the most *acusmata* are best situated in regard to practical wisdom. And these so-called ‘acusmata’ are distinguished into three kinds: some signify ‘what is’, others ‘what is to the greatest degree’, and others ‘what ought or ought not to be done’. Those that

²⁵ Cf. Arist. *Top.* 1.1, 100a1-30. If my reading is right, it might help us at least in a limited way to speculate further about the contents of the mysterious *Explanation of the Verses of Empedocles* (Ἐξήγησις τῶν Ἐμπεδοκλέους), ascribed by Suidas (s.v. Ζήνων Τελευταγόρου = DK 29 A 2) to the person whom Aristotle considered the founder of dialectic, Zeno of Elea.

signify 'what is' are of this sort: "what are the islands of the blessed? Sun and moon."; "what is the oracle at Delphi? The *Tetraktys* (which is the harmony in which the sirens exist)." ...[list of 'what is?' *acusmata*]...Those [that signify] 'what is to the greatest degree' are, e.g., "what is most just? To sacrifice"; what is wisest? Number." ...[list of 'what is to the greatest degree?' *acusmata*]...These and similar things are the *acusmata* of this kind; for each of them signifies what is to the greatest degree. And this [i.e. philosophy] is the same as that which is called the wisdom of the Seven Sages. For they too sought not what is the good, but what is good to the greatest degree; not what is difficult, but what is most difficult (e.g. to know oneself); not what is easy, but what is easiest (e.g. to indulge in habit)...[insertion by Iamblichus?]...Those of the *acusmata* which signify what ought or ought not to be done were of this sort: one ought to beget children (for it is necessary to leave behind people to serve god)...*etc.*

I suggest that Aristotle's approach to the Pythagorean *acusmata* in the lost works on the Pythagoreans cannot be isolated from his broader commitment to employing the accepted thoughts of wise or reputable people (*endoxa*) as data in dialectical investigations.²⁶ As we have seen, in the lost works on the Pythagoreans, Aristotle appears to have classified the various question/answer pairs provided by the *acusmata* under topical headings, elsewhere in Aristotle's *Topics* (1.14, 105b19-25; **passage 7 on your handout**) described as organized by distinct proposition (*πρότασις*): *logical* propositions like, "is knowledge of contraries the same or not?"; *scientific* propositions like, "is the universe eternal or not?"; and *ethical*

²⁶ Cf. Mansfeld 1990: 28-45 and, more recently, Barney 2012.

propositions like, “should one obey parents rather than laws, if they are at variance?”.²⁷ The three groupings we find in the lost works on the Pythagoreans do not, at first glance, easily map onto the three types of propositions given in *Topics*, but it is worth further investigation of this relationship.²⁸

In terms of the wording of the *questions* themselves, Aristotle’s dialectical propositions are not open-ended: they only admit of affirmation or denial, i.e. ‘yes’ or ‘no’ responses, by contrast with the Pythagorean questions, which would be, in Aristotle’s mind, universal, but not dialectical, since they have not been properly formulated in accordance with preliminary distinctions.²⁹ One example of such an improperly dialectical question is “what is a human being?” (τί ἐστὶν ἄνθρωπος), a question that, as I have argued in my forthcoming monograph, was taken up by mathematical Pythagoreans from Epicharmus to Plato.³⁰ In terms of content, there is reason for comparison between the schemata of the Pythagorean *acusmata* and Aristotle’s tripartite division of dialectical propositions. Now it is quite obvious that the third class (c) of Pythagorean *acusmata*, “what ought to be done?”, which was also recorded by Anaximander the Younger, is strongly related to the third type of dialectical proposition in Aristotle’s *Topics*, namely that which asks *ethical* questions. But the other two types of propositions do not map onto the classes of Pythagorean *acusmata* as easily. Aristotle claims that what differentiates the class of *logical* propositions is that it

²⁷ I do not wish to commit myself to the debate concerning the meaning of *protasis* in Aristotle, except to say that in a pre-dialectical context of the sort presented in *Topics* 1.14, it is not clear that Aristotle means to use the questions called *protaseis* as premises within a syllogistic argument. *Contra*, e.g. Mansfeld 1990, I have opted for the looser ‘proposition’ here, partially in the light of the conclusions of Crivelli and Charles (2011), and partly because Aristotle explicitly identifies a *dialectical protasis* (πρότασις διαλεκτική) as an “opinion-based *question* (ἐρώτησις ἔνδοξος) held by everyone or the majority or the wise...which is not paradoxical” (*Top.* 1.10, 104a9-11).

²⁸ This tripartite division anticipates a similar division of philosophy under the Stoics, but, as Smith has argued (1997: 90-92), we should be cautious in assuming that the Stoic understanding of this schema is the same as Aristotle’s.

²⁹ Arist. *Top.* 8.2, 158a14-24.

³⁰ Horkey 2013a: chapters 4-5.

concerns itself with whether something can be said to be *the same or different* from other things. Earlier on in the *Topics*, in fact (1.5, 101b37-102a14), Aristotle had referred to these sorts of questions as falling under the predicable of definition, because they constitute statements which signify the essence (τὸ τί ἦν εἶναι σημαίνων) of something.³¹ For Aristotle, the question ‘is something the same or different’ is thus a periphrastic version of the question ‘what is *x*?’, which Aristotle considers insufficient for dialectical purposes. So, like class (c), class (a) from Aristotle’s organization of the Pythagorean *acusmata* does in fact correspond with Aristotle’s basic classification of dialectical propositions in the *Topics*. The relationship between the second class, (b), which encompasses questions of “what is to the greatest degree”, and the scientific class of propositions is less clear cut, in part because, to my knowledge, Aristotle nowhere else *explicitly* describes the propositions which deal with natural science except here.³² The example given is “is the universe eternal or not?”, a proposition that, *viz.* time, might be thought to deal with degree in the superlative (just as the τί μάλιστα questions do).³³ It would be helpful to see other examples of such scientific dialectical propositions in Aristotle’s work.³⁴

³¹ The specific question elicited for example is “are perception and knowledge the same or different?” Note that Aristotle uses the same verb, σημαίνειν, in the passage from Iamblichus’ *On the Life of Pythagoras*.

³² He has (at *Top.* 1.10, 104b1-17) discussed scientific *problems*, which are similar to propositions, as those which are “directed towards knowledge” (πρὸς τὸ εἰδέναι), by reference to the problem of the nature of the universe, whether it is eternal or not. He goes on to describe such problems as those which people consider “difficult to assign a reason why” (χαλεπὸν τὸ διὰ τί αποδοῦναι). For whatever it is worth, Alexander (*in Top.* 1.14, p. 94.5-6 Wallies) takes physical propositions to be those which “contribute to discernment and truth” (cf. *Top.* 1.10, 104b1ff.) on the grounds that “all the [problems] of nature in themselves have the most authoritative reference to discernment of the truth”. He also comments later on (*ibid.* p. 95.5-7 Wallies): “we will refer to scientific propositions as those about increase, movement, coming-to-be, and passing away.” Smith suggests (1997: 92) that Alexander interprets this passage “against the background of a much later controversy about the place of logic in philosophy.”

³³ For Aristotle’s arguments on the eternity of the universe, see Wildberg 1988: 12-15.

³⁴ Alexander (*in Top.* 1.11, p. 76.1-2) identifies three other scientific problems, which are “is the world unlimited or not?”, “is it spherical or not?”, “is the soul immortal or not?” For Aristotle’s arguments on the eternity of the universe, see Wildberg 1988: 12-15.

Be that as it may, we can advance some tentative conclusions about Aristotle's method of appropriating Pythagoreanism. In particular, he seems to have followed Anaximander the Younger in collecting the *acusmata*, but he went further by differentiating three classes that, generally speaking, reflect his own division of dialectical propositions into logical, scientific, and ethical types. We might wish to relate Aristotle's approach to the collection and basic classification of the *acusmata* more broadly to his dialectical approach to the reputable opinions of his antecedents: in *Metaphysics*, *Meteorologica*, *On the Heavens*, *Physics*, *Posterior Analytics*, and *Nicomachean Ethics*, Aristotle's use of Pythagorean *endoxa* is chiefly dialectical and involves appropriation of Pythagorean concepts in a way that does not obviously differ from his treatment of other antecedents and competitors whose doctrines are accepted by persons of repute, spanning Thales to Xenocrates.³⁵ In the evidence he collected concerning the Pythagorean sayings, however, Aristotle found a tripartite classification that could be thought to anticipate his own division of propositions and problems in the *Topics*. Was the division original to the Pythagoreans? This, I think, must remain doubtful; rather, it probably derives from other collections of wisdom-sayings, such as those that might have been available in the writings of Anaximander the Younger of Miletus, who collected and probably provided explanations of the "what ought to be done" *acusmata*; and Hippias of Elis, who expressly set out to develop a comparative classificatory scheme for the "most important" sayings and writings of the famous Greeks and barbarians, according to similarity in kind.³⁶

I do not have time to show, to the satisfaction of anyone here today, the ways in

³⁵ Unfortunately, I do not have space to justify this argument in detail. For now, however, the reader would be well (if not completely) served by Zhmud (2012: 433-452).

³⁶ We should not count out the possibility that those sayings of the Seven Sages considered to fall under the class of τί μάλιστα might have been collected as well, as Iamblichus (above) suggests.

which Plato appropriated Pythagoreanism. That has been the subject of my forthcoming book, so I will refrain from going into particular detail on that subject, and beg your patience as it is currently in the process of publication.³⁷ I will be happy, however, to summarize my conclusions on this topic, as I discuss them in the book. In general, I see Plato's approach to Pythagoreanism as broadly critical and, just as I would see for Aristotle, not substantially diverse from his treatment of his other philosophical predecessors. Importantly, as I argue in my book, the collection of figures we tend to refer to as the 'Pythagoreans' originally constituted a *hetaireia* which, after the mid-5th Century, split into two groups along both ideological and political lines. The group that Plato came to be associated with in the writings of the late 4th Century historians Timaeus of Tauromenium and Neanthes of Cyzicus was called by Aristotle the '*mathematici*', and by Timaeus the 'exoterics', who came to be known for their attempts to democratize Pythagorean secret knowledge by way of written demonstrations of various sorts. Plato, I suggest, took seriously their project of attempting to provide demonstrations of the Pythagorean *acusmata*, especially those definitional *acusmata* that fall under the category 'what is?', and sought to develop a series of methodological critiques of their explanatory procedures in several works (especially *Phaedo*, *Republic*, and *Cratylus*). Plato is thus a Pythagorean only in a qualified sense: like the other mathematical Pythagoreans, Plato sought the best means to prove some of the *acusmata*; but unlike them, his attempts to prove the *acusmata* led to totally novel conclusions in metaphysics, including the significant postulation of the Forms of numbers, which had never been proposed as such by any Pythagoreans before him. And it is only in the very latest dialogues, especially *Timaeus* and *Philebus*, that Plato is willing to hint at how the

³⁷ Horkey 2013a.

philosophical discoveries of the mathematical Pythagoreans (especially Hippasus, Philolaus, and Archytas) provided him with a framework for developing a sufficient methodology for his own inquiries into the nature of the sensible part of the universe and what might lie beyond it.

So at this point it might be worth taking stock of the sorts of ways in which philosophers and other intellectuals in Athens 'appropriated' Pythagoreanism, roughly from the death of Socrates in 399 BCE until the death of Plato in 347 BCE. Our first witness is Antisthenes of Athens, whose appropriative strategy brought Pythagoras into the distinctly Athenian – I suspect at that time – arena of oratory, using him as a paradigm, like Odysseus, of the ideal orator (a πολύτροπος) who exhibits the capacity to persuade nearly everyone of his convictions due to his attentiveness to his audience; and consequently, Pythagoreanism was characterized, from early on, as appropriable: persuading people to the same end could be attained by diverse kinds of expression. Another contemporary student of Socrates, but of a different stripe, was Aristippus of Cyrene, who either used etymologization as a riddling means to explain the name Pythagoras, or (as I suspect) parodied someone else who would have done the same sort of thing. The sort of person to do something like that might have been Anaximander the Younger of Miletus, whose *Explanation of the Pythagorean Symbols* probably organized the ethical precepts of the Pythagoreans and provided some sort of critical response to them – but it is not obvious that this critical response must have been allegorical. We spent a comparably larger amount of time on Aristotle, who seems to have used the writings of Anaximander the Younger as a template for developing a detailed classificatory scheme for the Pythagorean *acusmata* based on (or anticipating?) Aristotle's own division of all dialectical propositions/problems into three types: logical, scientific, and

ethical. Finally, Plato adopted an agonistic stance *viz.* the Pythagoreans of his own day, both Philolaus and Archytas, especially with regard to the insufficiency of their methods of demonstration or explanation for the purposes of his philosophy. The Pythagoreans had found a path that led towards the truth, but their inability to rise above the sensible realm limited their capacities to see and finally grasp it. As he had done more explicitly with Anaxagoras, Plato rejected what he thought were naive demonstrative methods on the part of the Pythagoreans, while at the same time adopting their scope of inquiry and transforming it by forcing it to adhere to the principle of teleology.

Broadly speaking, then, we can discern four basic and sometimes overlapping ways in which intellectuals associated with Athens 'appropriated' Pythagorean thought: by way of (a) local familiarization (Antisthenes), (b) explanation, either allegorical or pragmatic (Aristippus and Anaximander the Younger), (c) classification and contextualization with other wisdom-traditions (Anaximander the Younger and Aristotle), and (d) critique and transformation (Aristotle and Plato). The question arises: did the associates of the Early Academy approach Pythagoreanism in any of these sorts of ways, or did they develop divergent responses?

The most extensive recent treatment of the Early Academy's response to Pythagoreanism, that of Leonid Zhmud, concluded that "the Platonists were characterized by a *benevolent attitude* to Pythagoras and the Pythagoreans and an *interest in* their scientific, philosophical, and religious theories...The Platonists *reacted*, not to a common Pythagorean doctrine, but to *various theories of Pythagoras and his successors*: Philolaus, Archytas, Ecphantus and Hicetas, et al. Speusippus *relied on* the mathematics of the Pythagoreans; Heraclides on their astronomy (developing at the same time the legendary tradition on Pythagoras);

Xenocrates evidently *made use of* harmonics....Plato himself slurred over his dependence on the Pythagoreans: why should the Platonists understate the originality of their teacher?"³⁸ Much ink has been spilled on the possibility that Speusippus had undertaken to formalize Pythagorean numerology and draw it up alongside his own metaphysical schemes; and scholarly assessments of Heraclides' role in the development of the legendary tradition concerning Pythagoras, the inventor of the term 'philosophy', are not lacking in the critical literature either.³⁹ On Xenocrates, however, little has been said; I will take Xenocrates as a case study for my interests in modes of the appropriation of Pythagoreanism in the Early Academy, on the grounds that, among other things, he expressly claimed that Pythagoras "discovered" the harmonic intervals, thus appropriating Pythagoras into a heuristical framework which could, at least in principle, be used dialectically.⁴⁰

As we have seen with Aristotle above, developing a dialectical format for the history of philosophy seems to require rules to be set down, especially rules regarding the proper classification of the diverse objects of philosophical inquiry. Perhaps surprisingly, it is Xenocrates who was considered to have originated the division of philosophy into three parts, and, in the light of what has been said up to this point, it seems worth looking a bit

³⁸ Zhmud 2012: 431-432.

³⁹ On Speusippus and Pythagoreanism, see especially Tarán 1980: 257-298. On Heraclides and Pythagoreanism, see Kahn 2001: 66-68 and Riedweg 2005: 91-97.

⁴⁰ In fact, it is somewhat surprising to see Zhmud's arguments (2006: 100-116) for Plato's originality: that Plato himself would be considered 'original' *viz.* the history of science cannot be found in any of the surviving fragments of the major Early Platonists Speusippus, Xenocrates, Heraclides of Pontus, Philip of Opus, or Hermodorus of Syracuse. Zhmud's evidence for the 'Academic' tradition that Plato could be considered an original 'architect' of science comes from Philodemus, a passage whose source remains terrifically elusive and does not, at least to the naked eye, obtain an Academic tone. The main evidence in support of Zhmud's case, which derives from the *Epinomis* (probably authored by Philip of Opus), is dismissible because the sciences are introduced by a god (Theos Ouranos at 976e3-b8), not a human. Zhmud claims of [Pl.] *Epin.* 986e9ff., "the inhabitants of Egypt and Syria were first to discover the planets and give them divine names", but in fact the text describes this activity as "observation", not discovery, which suggests a different order of inquiry (Zhmud 2006: 112-113). The attribution of scientific developments to humans, rather than Titans, Olympians, or heroes, is expressly the provenance of the Peripatetics, with one exception from the Academy: Xenocrates, who describes Pythagoras as the inventor of the harmonic intervals, on whom see below. Also see Sider's hesitations (2007: 242).

more closely at this testimony, as preserved by Sextus Empiricus (**passage 8 on your handout**):

These thinkers [i.e. those who hold that philosophy has one or two parts], however, seem to have handled the question deficiently and, in comparison with them, those who say that a part of philosophy is physics, another ethics, and another logic, [seem to have handled the question] more completely. Of these, Plato is a pioneer, [at least] potentially, as he produced many discussions on many issues of physics and ethics, and not a few on logic; but those associated with Xenocrates, as well as those [who come] from the Peripatos and those too from the Stoa, adopt this division most expressly.

(Sextus Empiricus, *Against the Logicians* I.16 = Xenocrates F 82 IP)

Sextus' Hellenistic source, whoever it might have been⁴¹, is explicit in claiming that Plato was only a 'pioneer' (ἀρχηγός) of the division of philosophy into three parts 'potentially' (δυνάμει), whereas Xenocrates is listed first as the figure who adopted the division 'most expressly' (ῥητότατα), followed by the Peripatetics and the Stoics.⁴² If Xenocrates indeed was the first to fix this division of philosophy⁴³, then we are faced with two interesting historical dilemmas: (a) was Aristotle adopting Xenocrates' division of philosophy when he classified dialectical propositions according to logic, natural science, and ethics? And (b) did Xenocrates, like Aristotle, know about and attempt to classify and/or respond critically to the

⁴¹ Sotion has just been cited in the previous sentence as the authority behind the claim that the Cyrenaics thought that ethics and logic are parts of philosophy. Is Sotion Sextus' immediate source?

⁴² Cf. Dillon 2003: 98; *contra* Zhmud 2012: 422ff.

⁴³ At least not explicitly. As Dillon, following Isnardi Parente, argues, however, Cicero's claim (*Acad.* I.19, derived from Antiochus?) that the "threefold scheme of philosophy" (*philosophandi ratio triplex*), which broadly-speaking conformed to ethics, physics, and logic, was already in existence before Xenocrates might be thought to come from Xenocrates' work *On Philosophy*. Even if that might be admitted, it is still quite far from a history of scientific discovery.

Pythagorean *acusmata*? The first question is virtually impossible to answer. The second, however, offers further room for investigation and, as we will see, some plausible speculation.

Diogenes Laertius preserves the titles of several works that might have contained Xenocrates' critical responses to Pythagoreanism, among which are *Pythagoreia*, *On Numbers*⁴⁴, *On Geometry*⁴⁵, *On Intervals*, and *On Sciences*.⁴⁶ Nobody knows what those works looked like. Moreover, it is rather difficult to pinpoint exactly where Xenocrates' critical response to the *acusmata*, if it existed at all, might lie. In fact, there is no *explicit* evidence (at least that I can find) of the Pythagorean *acusmata* in Xenocrates' fragments; nor do we have any titles preserved that suggest allegorical exegesis of his predecessors' philosophy of the sort practiced by, among others in the Academy, Heraclides of Pontus or Crantor of Soli.⁴⁷ I would like to highlight, however, important underutilized evidence for Xenocrates undertaking the sort of explanatory approaches to the wise sayings of his predecessors that we have above seen in the writings of Anaximander the Younger and Aristotle.

There is good evidence that Xenocrates did attempt to provide pragmatic explanations of the wisdom-sayings of, in particular, the mythical lawgiver and culture hero Triptolemus at Eleusis⁴⁸ (**passage 9 on your handout**):

They say that Triptolemus laid down laws for the Athenians, and of his precepts the philosopher Xenocrates says that the following three still remain in force at Eleusis: 'Honor thy parents'; 'Offer first-fruits

⁴⁴ Possibly another text, entitled the *Theory of Numbers*, was the same as this text.

⁴⁵ Another title called *On Geometers* might be for the same work.

⁴⁶ D.L. 4.13-14 = F 2 IP.

⁴⁷ On which, see Dillon 2003: 218-220.

⁴⁸ The immediate source here is Hermippus of Smyrna, and Porphyry claims to quote from the second book of *On the Legislators* (FGrHist 2026 F 4), a work which also featured Pythagoras as a "lawgiver", i.e., someone who handed down precepts (FGrHist 1026 F 1). On νομοί as 'precepts' rather than 'laws' in a strict sense, see Bollansée 2012. On Triptolemus and his role in the cult at Eleusis, see Clinton 2010:347-8.

to the gods'; and 'do no harm to animals'. Well, then, the first two he [i.e. Xenocrates] considers to have been handed down excellently: for we ought to do well in return unto our parents to the best of our ability, as they are our benefactors; and we ought to offer first-fruits to the gods, by whom first-fruits were given for our livelihood. But regarding the third precept he raises the question, 'what did Triptolemus intend when he enjoined abstinence from eating animals? Did he simply consider,' he says, 'that it would be a terrible thing to kill one's kindred, or did he rather observe that it happens that they are killed by men because they are the most useful of living things for nourishment? So it would be through wishing to render his life civilized that he tried to preserve those animals which were domesticated and the companions of men. Unless perhaps, assuming that we should honor the gods through an offering of first-fruits, he thought that this prerogative would be better preserved if animal sacrifices were not offered to the gods.' Xenocrates gives many other reasons for this precept, none of them very precise, but it is sufficient for our purpose to note that this precept was legislated by Triptolemus.

(Porphyry, *On Abstinence* 4.22.2-5 = F 252 IP)

This testimony, I suggest, is crucial for investigating possible types of appropriation of Pythagoreanism in the Early Academy. We see that Xenocrates has listed three 'precepts' (νομοί) handed down by Triptolemus that are still in effect in Eleusis and then evaluates

their content by way of philosophical explanation. In particular, we note that he explains the excellence of the first two precepts of Triptolemus through appeal to the principle of reciprocal benefaction, which was treated extensively by Aristotle in the *Nicomachean Ethics* under the rubric of ‘friendship’, and for which we have a title of a work by Xenocrates, called *On Benefaction* (Περὶ ὠφελίμου).⁴⁹ But the third precept, which prescribes against killing animals, receives an extensive commentary by Xenocrates. First, he raises an *aporia* about – and this is of special significance – the ‘intention’ (διανοηθεὶς) of Triptolemus. He then speculates further about the possible reasons (they are called αἰτιαί by Porphyry) why Triptolemus applied this precept, the first of which appeals to the possibility of recognizing animals as kindred to humans (ὁμογενές); and the second of which focuses on the proper way of civilizing the ‘way of life’/‘livelihood’ (βίος) of humans, in a broadly Protagorean or Democritean hue. So Xenocrates’ modes of explanation are not terribly diverse from what we see associated with Anaximander the Younger’s treatment of the Pythagorean *acusmata*; and the ‘rationalizing’ approach to explanation of the ‘intention’ of Triptolemus represents a sort of practical adaptation of the approach of the Homeric rhapsodes, such as Stesimbrotus and Theagenes, in which explanation of the *lemmata* obtains pragmatic reasons for speaking. This activity of (a) listing the precepts, (b) evaluating them, and (c) providing probable rationales for their introduction present a form of exegesis that cannot be called allegorical, despite the evidence that, at least in his approach to metaphysics and epistemology, Xenocrates was willing to identify certain elemental forces and even the various objects of knowledge with gods, goddesses, and other divine figures.⁵⁰ Perhaps Xenocrates believed

⁴⁹ On benefaction in the writings of the Peripatetics, see Horkey 2011: 127-136.

⁵⁰ There is no strong evidence that this activity should be considered ‘Pythagorizing’ before the onset of the Neopythagorean tradition, probably in the 2nd or 1st Century BCE. I suspect, instead, that it is much more

that there were not only diverse ways of approaching and classifying the objects of philosophical study, but also of speaking properly about them.⁵¹

Be that as it may, we can see that in the field of ethics, Xenocrates took very seriously the precepts of the wise men who came before him.⁵² Later doxographers preserve a story in which, when asked the question, “what advantage have you gained from philosophy?”, Xenocrates responds, “that I do what is ordained by the precepts – but of my own will.”⁵³ In this way, we cannot see Xenocrates’ response to the archaic precepts at Eleusis as particularly diverse from Aristotle’s critical response to the Pythagoreans.⁵⁴ In fact, what might surprise someone who considers the evidence discussed here is how similar Xenocrates’ ascription of the discovery of musical intervals to Pythagoras – whatever it might have actually looked like – and his explanatory framework for the wisdom-sayings of the Eleusinian lawgiver Triptolemus reflect *Peripatetic* tendencies (and vice versa): in the field of ethics, Cicero saw Xenocrates and Aristotle on the same plane (Cic. *de Fin.* 4.15-18 = F 234 IP); and, as we have seen, both Xenocrates and Aristotle put at the center of their philosophical inquiry the tripartite division of subjects into logic, physics, and ethics. It is true that, especially in his theories of metaphysics and epistemology, Xenocrates’ philosophy diverges quite significantly from Aristotle’s, and that, moreover, Xenocrates quite often –

closely linked to Orphic exegetical practices. On these tendencies in Xenocrates’ metaphysics, see Horky 2013b and Janko 1997: 68-69.

⁵¹ See, for example, what Clement of Alexandria (2.5 = F 259 IP) says about Xenocrates:

Xenocrates, too, in his work *On Phronesis*, says that wisdom (*sophia*) is the knowledge of the primary causes and of the intelligible being, whereas he believes that *phronesis*, which is, in fact, a human sort of wisdom, is bifurcated into the practical and theoretical. Therefore wisdom is *phronesis*, although not all *phronesis* is wisdom.

⁵² If Dillon (2003: 138-144) is right that Cicero in *On Ends* (4.17-18) is describing Xenocratean ethics, it is unsurprising to find the claim that ‘to the vicissitudes and blows of fortune a life directed by the precepts of the old philosophers could easily rise superior’ (trans. Dillon).

⁵³ F 258 IP = *Gnomol. Vat.* 417; Cicero (F 256 = *Rep.* 1.2.3) and Servius (F 257 = *in Aen.* 7.204.2) preserve two similar versions of this story in Latin. It seems to have been a topos to collect these sorts of anecdotes: contrast the response to the same question attributed to Aristippus by Diogenes (2.68 = SSR IV A 104): “the ability to associate with everyone calmly.”

⁵⁴ The same anecdote is attested for Aristotle as well (D.L. 5.20).

perhaps more often than is thought – was the object of Aristotle’s attack in the *Metaphysics*. But with regard to the correlative activities of *historia* – that is, collection and basic classification of empirical data for a science – and dialectical investigation of the wisdom of his predecessors, Xenocrates seems to be a product of a broader Athenian intellectual culture, not stringently bound to any allegorical or enigmatic ‘Pythagoreanizing’ doctrine (whatever that might be thought to mean), at least in his evaluation of his predecessors’ contributions to philosophy, including those of Pythagoras. In fact, the best witness to this notion is Iamblichus himself, who attacked Xenocrates, along with Eudoxus and Epimenides, for failing to adopt the allegorical exegesis of Pythagoras’ name, which, as we saw earlier, was associated with the Socratic Aristippus of Cyrene (**passage 10 on your handout**):

And when she [i.e. Parthenis] gave birth in Sidon of Phoenicia, he [i.e. Mnemarchus] called the son born ‘Pythagoras’, because the **Pythian greeted** him [by name]. We must reject here the view of Epimenides, Eudoxus, and Xenocrates, who assumed that Apollo had intercourse with Parthenis at that time, and when she was not pregnant, he made her so, and announced it through his prophetess.

(Iamblichus, *On the Pythagorean Life* 7; translated after Dillon and Hershbell)

While it is the case that forms of allegorical interpretation of Pythagoreanism were available to Xenocrates, he does not appear to have employed them in his ethics. A more comprehensive reassessment, then, of the ways in which figures associated with the Early Academy ‘appropriated’ Pythagoreanism might thus take the form of further inquiry into

how Xenocrates – as well as other early Platonists – used the available historiographical models of other Peripatetics for collection, classification, and ultimately dialectical response to the *endoxa* of their predecessors. If Xenocrates is to be credited as the father of Pythagoreanizing Platonism, we might need to explain it better by taking stock of what we means to ‘Pythagoreanize’ Plato. This activity might look much different in the context of Peripatetic philosophy, to say nothing of the earlier doxographical practices in the intellectual culture of Athens. It might, in fact, look like a mirage.