PYTHAGOREAN PANPSYCHISM AND DEEP ECOLOGY?

1. A simple historical question about deep ecology

When in the history of western philosophy do we find the first *explicit* argument from a deep ecology standpoint that we ought to behave toward the natural environment, or specific parts of it, in a certain way? In what follows, I will examine a text that suggests that the answer to this question is probably the second or third century BC. Before I turn to the answer, however, let me first refine the terms of the question a bit.

Some philosophers have alleged that a *metaphysical basis* for a deep ecology standpoint can be found in Pythagoreanism,[1] Platonism[2] and Stoicism.[3] In both Plato's *Timaeus* and in Stoicism, we find the view that the sensible cosmos is itself a living, rational and divine being.[4] Such a view provides an understanding of how it might be possible that other living and non-living things should be connected to us in such a way as to have moral standing independent of their use value to humans. However, in the case of Stoicism, this promising start is blighted by the additional thesis that there can be no

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[1] Donald Hughes, 'The Environmental Ethics of the Pythagoreans', *Environmental Ethics* 2 (1980), 195–213. I think it turns out that Hughes is right in a sense: I'll claim that the authors of the first explicit deep ecology normative argument were either Pythagoreans of the Hellenistic period or else forgers presenting themselves as Pythagoreans. My misgivings about Hughes' paper centre on the fact that he treats Pythagoreanism as a more or less continuous philosophical tradition from the time of Pythagoras until it was absorbed into neoplatonism with Porphyry and Iamblichus. This misrepresents the complexity of the Pythagorean question.

[2] Gabriela Carone, 'Plato and the Environment', *Environmental Ethics* 20 (1998), 115–134. Carone's careful and scholarly approach to Plato sets the record straight against many of those who have pilloried him as the source of all that is wrong with anthroprocentric, instrumentalist, rationalistic attitudes toward nature. Val Plumwood (*Feminism and the Mastery of Nature* (London, 1993), for example, takes this sort of line on Plato. Yet even Carone can only do so much for Plato. His views about the beauty and value of the entire cosmos and its status as an image of the all-perfect form of Animal may lay the metaphysical foundation for some normative conclusions about the environment, but Plato nowhere explicitly draws any such conclusion.

[3] Jim Cheney's rather uncritical interpretation of Stoicism ('The Neo-Stoicism of Radical Environmentalism', *Environmental Ethics* 11 (1989), 123–25) is corrected by William Stevens ('Stoic Naturalism, Rationalism and Ecology', *Environmental Ethics* 16 (1994), 275–86. As Stevens shows, Cheney fails to notice that the Stoics think that the moral sphere extends only as far as other rational creatures. There specification of happiness as 'agreement with nature' needs to be read carefully in the context of their moral philosophy. The suggestions of Carmen Valayos Castelo on how one might mitigate the force of Stoic logocentrism ('Reflections on Stoic logocentrism', 18 (1996), 291–6) seem to me to run aground on dreadful texts like Epictetus' *Discourses* I.6 where it is claimed that all of nature is for us humans since we and we alone are the rational observers of god's teleological handiwork. A balanced picture of the hopeful signs and disappointing features of Stoic thought vis a vis the environment is presented in Alan Holland, 'Fortitude and Tragedy: the prospects for a Stoic environmentalism' in *The Greeks and the Environment*, Laura Westra and Thomas Robinson (eds) (Lanham and Oxford, 1997),151–66.

[4] Plato, *Timaeus* 30B-34B; for the Stoics, see Cicero *On the nature of the gods* II.22; II.37–9.

relation of justice or moral obligation between rational beings and those that are not rational.[5] Moreover, Stoic pantheism is coupled with a view of divine providence that is breath-takingly anthroprocentric.[6] For these reasons it is a mistake to see Stoics as proto-deep ecologists. When we turn to Plato's works, we do not find any additional philosophical views that would expressly prevent him for arguing from a deep ecology standpoint. In spite of the way that Plato has been held up as the original bad guy by some deep ecologists and ecofeminists, a responsible look at the content of his works shows the *potential* for articulation of a non-anthroprocentric, environmentally friendly moral philosophy. I think, however, that this potential is never realised in an explicit argument from a deep ecology standpoint for a normative conclusion.[7] The kind of argument that I'm seeking is one that says, more or less explicitly:

1. Human beings share a special kind of community with the totality of nature.
2. Because of this special kind of community, we ought to treat nature (or some specific aspect of nature) a certain way irrespective of whether this benefits humans.

While the Stoics have views in addition to their pantheism that prevent them from affirming a thesis like 2, Plato simply never frames an argument that involves a move from a premise like 1 to anything resembling 2.

A second point of clarification about the object of our search needs to be made. It is not too surprising that philosophers in antiquity didn't discuss deforestation, loss of biodiversity or any of the forms of environmental degradation that concern us. Quite simply, the idea that we human beings could do anything too terribly drastic to the environment is a relatively recent one. It would be a mistake to deny that ancient writers were aware of some cases where human activity had changed the environment for the

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[5] Cicero, *On Goals* III.67; Diogenes Laertius, *Lives* VII.129. Cf. Richard Sorabji, *Animals Minds and Human Morals* (London and Ithaca, 1993), chapter 10.

[6] Cicero, *On the nature of the gods* II.133; Plutarch *On Stoic Self-Contradictions* 1044D.

[7] The metaphysical underpinnings for a Platonic ecology are surveyed by Madonna Adams, 'Environmental Ethics in Plato's *Timaeus*' in *The Greeks and the Environment*, Laura Westra and Thomas Robinson (eds) (Lanham and Oxford, 1997), 55–72. See also the papers by Mahoney and Goldin in the collection. It seems to me that Adams does the best job in illustrating the *potential* for an environmental ethic in Plato's works. As with Carone (supra n. 2), I think even she concedes that the potential is never quite fulfilled.

worse. However, the thought that humans might be capable of eradicating whole species or destroying an entire kind of habitat seems to have been beyond their powers of imagination.[8] Thus, when we consider their views on "environmental issues" this often boils down to the question of our relation to non-human animals, and specifically domesticated animals. I say domesticated animals, because even those who argue for vegetarianism, like the Platonist Porphyry, suppose that we are in something like a state of war with some kinds of wild animals. Thus, when we are seeking an instance of a normative conclusion like 2, the most likely candidates will be claims about whether it is right to eat or sacrifice animals. But we need to be aware that such normative conclusions may or may not be reached from anything like a deep ecology standpoint. Plutarch, for example, takes seriously the idea that the souls of animals might be reincarnated human beings. Thus we ought not to kill animals for food. But this is not an argument that exploits a deep connection between humans and the rest of nature in a way that makes it proto-deep ecology. So though the case of animals may provide us with our best hints about the green credentials of ancient philosophers, care must be taken. Peter Singer endorses the conclusion that we ought not kill non-human animals, but this doesn't make him a deep ecologist. When we go looking for ancient precursors to deep ecology, we'll be looking for philosophers who endorse some normative conclusion about how we ought to treat certain other parts of nature – and typically those other parts will be animals – but who argue in a way that could be generalised beyond the case of animals to other parts of nature as well.

2. A tantalising text

The text that I think provides our first relatively explicit argument from a deep ecology point of view occurs in book IX of Sextus Empiricus' *Adversus Mathematicos*. The specific context of our argument is in Sextus' discussion of proofs for the existence of god or the gods. In the prior sections, he has discussed the positive arguments of the dogmatists. At *Adv Math* IX, 123 he begins the examination of arguments used by dogmatic theists that try to show that absurd consequences flow from atheism. These

[8] With some qualifications, see John Rist 'Why Greek philosophers might have been concerned about the environment' in *The Greeks and the Environment*, Laura Westra and Thomas Robinson (eds) (Lanham and

arguments generally take the form of a modus tolens: if the gods do not exist, then there is no such thing as piety. Sextus invokes a definition of piety from Plato's *Euthyphro*: piety is the science of service (*therapeia*) to the gods. But there is no service to what does not exist, and thus no science of such a service either. So, if the gods do not exist, then piety does not exist. But manifestly piety exists, so the gods exist.

At 126 he begins another argument of the very same form, but then interrupts it with a digression on "Pythagoras and Empedocles". This digression is our key text.

> (1) Furthermore, if justice too has been introduced because of the connection (*epiplokên*) of humans to one another and to gods, then if there are no gods, then there is also no such thing as justice: which is absurd.
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> (2) Now Pythagoras and Empedocles and the Italian gang (*tôn Italôn plêthos*) declare that we have some kind of fellowship (*tina koinonia*) with one another and with the gods, but also with the irrational animals. For there is a single breath (*pneuma*) which pervades the entire cosmos in the manner of soul (*psychês tropon*) and which unifies (*henoun*) us with them. Wherefore if we kill them and eat them, we will be doing what is both unjust and impious, in as much as we are destroying what is of the same kind (*suggenes*) as us.
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> (3) Hence too (*enthen kai*) these philosophers exhort us to abstain from ensouled things and declared those people impious who
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> > Stained the blessed altars red with warm blood of murder
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> And Empedocles somewhere says:
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> > Will you not cease from the din of slaughter? Do you not see that you are devouring each other in the heedlessness of your minds? (DK 136)
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> and
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> > The father lifts up his own son changed in form and slaughters him with a prayer, blind fool, as he shrieks piteously, beseeching as he sacrifices. But he, deaf to his cries, slaughters him and makes ready in his halls an evil feast. In

Oxford, 1997), 19–32.

the same way, son seizes father and children their mother, and tearing out the life they eat the flesh of those they love. (DK 137)

(4) But these things are surely mistaken – these things to which the followers of Pythagoras exhort us to. For it does not follow straight-away (*euthus*) that if there is a breath that extends through both us and them, that there is some sort of justice (*tis dikaiosunê*) between us and irrational animals. Just look: a breath (*ti pneuma*) goes through stones and through plants, so that we are united with them too. But there is no justice between us and plants or rocks, nor do we do anything unjust in cutting or sawing bodies like these.

(5) Why then do the Stoics claim that humans have a certain kind of justice and connection (*dikaiosunên tina kai epiplokên*) with other humans and gods? Not just because (*ou kathoson*) the breath that runs through all things exists, since then a kind of justice (*ti dikaion*) between us and irrational animals would be preserved, but rather because we have the kind of reason that reaches out to one another and to the gods, but the irrational animals will have no sort of relation of justice to us since they have no share in this reason.

(6) So it turns out that if justice is conceived to result from a certain association of humans with one another and the gods, it will be necessary that if the gods do not exist, then justice does not exist. But justice exists, so we must therefore declare that the gods exist. (*Adv Math* IX, 126–32)

My translation more or less follows that of Bury.[9] I have numbered some of the paragraphs in order to simplify our discussion a bit. Let me first draw your attention to the striking fact that the content of paragraphs 2–5 is *strictly irrelevant* to the line of argument that is begun in 1 and taken up again in 6. The argument requires a premise that says, at the very least, that justice involves a relation between humans and gods. This condition is met even if justice involves a relation between humans and gods as well as some other things. If it isn't essential to Sextus' argument, why does he include the digression about the expanded conception of justice entertained by the Pythagoreans and Empedocles?

[9] *Sextus Empiricus*, vol. 3, Loeb Classical Library (Cambridge, Mass. and London, 1936).

Moreover, in what voice does he categorically reject the "absurd" consequences that he thinks flow from this view?

Here is an additional point: what *from Sextus' own point of view*, is the reason for including paragraph 5? He certainly has no principled objection to treating Stoic philosophy uncharitably. On occasion he generates philosophical problems for 'dogmatists' by denying or ignoring distinctions that they could easily draw. Why not take this occasion to lumber them with an unwanted conclusion? After all, the Stoics agree that there is a certain kind of breath or *pneuma* that runs through all things. This breath, however, comes in a variety of gradations from *hexis* to *hēgemonikon*. (I suspect that those modern interpreters who suppose that the Stoics were proto-deep ecologists think this because they can't see a morally relevant difference between these gradations.) And if this were granted, then one could conclude that the Stoics have a metaphysics that connects humans to the world. But, as Sextus insists, the Stoics suppose that justice requires more than merely the kind of community (*koinônia*) that results from the presence of the *pneuma* in all of us. Justice requires that others are appropriately related to us (*okeion*) and nothing other than rational beings bear this relation to us. For reasons that are as yet unclear, Sextus is at pains to distinguish the Stoics from the proponents of vegetarianism presently under discussion.

Finally, notice the difference between the reasons for abstaining from the killing of animals that are presented in 2 and the reasons invoked in the quotes from Empedocles in 3. In the first paragraph we are presented with a metaphysical view not unlike that of Stoicism or Platonism where *pneuma* interpenetrates everything like a soul – indeed a bit like the World Soul of the *Timaeus*. But Empedocles' quotations raise considerations based on the idea of the migration of human souls into animal bodies. The grouping of Empedocles with these "Pythagoreans" is odd, since nothing in our relatively extensive information on the metaphysical views of the former suggests anything like *pneuma* that interpenetrates all things.

I think these are questions that cry out for an answer. My own hypothesis is this. There were philosophers who seriously propounded an argument that we should 'abstain from ensouled things' based on the idea that there is a breath or soul that is co-extensive with the

cosmos. This argument is not one that Sextus himself concocted for some other dialectical purpose. After all, it serves none. I also hypothesise that Sextus found this position so absurd that he couldn't refrain from saying so. He speaks for himself in paragraph 4 – the alleged absurdity of the Pythagorean position overcoming his sceptical reservations. He distinguishes this Pythagorean metaphysical view with its normative conclusion from the similar Stoic metaphysics that denies the normative conclusion for similar reasons. As a sceptic, Sextus thinks that we have no more evidence for the existence of Stoic *pneuma* than against it. But if such a metaphysical view is itself something about which we should suspend judgement, even Sextus thinks that it would not follow straight-away that if there were such a thing as *pneuma*, we must refrain from killing animals. Finally, I believe that the inclusion of Empedocles in this passage is purely gratuitous. His connection with this Pythagorean argument consists in nothing more than the fact that he too accepts the normative conclusion, albeit for very different reasons. If my hypothesis is correct, then the authors of this relatively explicit deep ecological argument are some of the followers of Pythagoras.

There is an alternative hypothesis that some might regard as simpler. The entire passage is taken from a Stoic source, probably Chrysippus. (As Galen tells us, Chrysippus was fond of quoting Empedocles and other writers at length (*SVF* II.884).) The logical force of this passage is to forestall a potential objection that Stoic theology is inconsistent with Stoic ethics. In spite of the fact that the *pneuma* interpenetrates everything and so establishes a kind of connection or community between god, man and the beasts, the *epiplokē* thus established falls short of that needed to ground relations of justice between humans and animals. There is thus no need to posit an additional source for this paragraph in Sextus: it is straight Stoicism.

I confess that I am unable to present an argument that definitively refutes this possibility. I can, however, note some odd things about it. First, if this is how we explain this passage, then we make Chrysippus pretty incompetent in his uses of sources. It is utterly unclear how appeal to Empedocles' notion of the transmigration of souls is supposed to show that the *epiplokē* instituted by the interpenetration of the *pneuma* through all things falls short of that which grounds a relation of justice. Not only will he be citing Empedocles in a way that is not apposite, but by putting him in the same category with

those who suppose that some breath or soul interpenetrates everything, he will reveal himself as someone who misunderstands a well-known pre-Socratic philosopher. As noted, the grounds for Empedocles' vegetarianism are very different. The only thing that Empedocles really has in common with 'the Italian gang' is that he thinks we shouldn't eat animals. I submit that his inclusion in this passage is far more likely to be the product of Sextus' own magpie-like method than the work of greatest mind of the Stoa. A purely adequate Stoic response to the problem is given in (5). The material in (2)–(4) adds nothing to this and, indeed, embodies just the confusions just noted. For this reason, I am hesitant to ascribe it to Chrysippus.

For these reasons, I invite the reader to take up the hypothesis that Sextus is reacting in this passage to the views of some proto-deep ecologist Pythagoreans. If we adopt this hypothesis, what more can we say about these philosophers?

3. But which Pythagoreans?

There are Pythagoreans and then there are Pythagoreans. We can think of our evidence concerning Pythagoreanism as forming layers, a bit like the layers of ruins at Troy. At the risk of taxing the patience of the expert reader, I'll provide a brief thumbnail sketch our evidence. Works like Kenneth Sylvan Guthrie's *The Pythagorean Sourcebook* are helpful in as much as they make translations of some of the evidence available to philosophers who do not read Greek. However, they also encourage the thought that works like Iamblichus' *Life of Pythagoras* and ps-Archytus' *Categories* are homogeneous reports of a sustained tradition of Pythagorean teaching. Arguably they are not. In this sketch, I am only speaking about the history of our *evidence* – what sort of writings we have which purport to be about Pythagoras and Pythagorean philosophy. There are several detailed studies of the content of this evidence, and what it does or does not tell us about Pythagoras himself, about continuity and innovation within the tradition and so on. On the whole, I'm inclined to agree with Zeller's assessment that there is not an unbroken tradition of Pythagorean philosophy from Pythagoras to the neo-Pythagorean movement of

the first century BC.[10] But our purpose here is simply to try to identify a likely source for the argument we find in Sextus *Adv Math* IX, 126–32.

First, we have Pythagoras (570–497?) whose philosophical, mathematical and religious teachings were communicated only orally. Testimonia about Pythagoras occur in authors of the fifth century. Several of these connect Pythagoras with Orphism and attribute to him a belief in the transmigration of souls from human to animal bodies. However, none of our evidence suggests that Pythagoras urged a complete abstention from all forms of animal foods – only parts of some animals.[11]

Our earliest evidence from within the sect comes with the writings of Philolaus, who was roughly contemporary with Socrates. Whether Aristotle's general references to Pythagoreans are significantly indebted to Philolaus is a matter of scholarly controversy. There are other Pythagorean philosophers listed in Diels-Kranz *Fragmente der Vorsokratiker* who also belong to the middle fifth and early fourth century, like Archippus, Archytus, Occelus, Timaeus of Locri, and Ecphantus. But the writings that we have under their names are forgeries. This takes us on to the next layer of evidence.

Holger Thesleff's *Pythagorean Texts of the Hellenistic Period* runs to 245 pages of Greek text and collects together works from sixty-one alleged Pythagorean authors. The dating of these works is a difficult matter. Thesleff's own estimate places them between the latter fourth century and first/second century BC. Zeller's earlier claim that nearly all of them have their origin in Alexandria in the first century BC is now widely rejected. In any event, there is a significant span of time by anyone's reckoning between Pythagoras and the *pseudepigrapha*. The mere fact that these works are forgeries does not render them useless in understanding the history of philosophy. We can ask *why* anyone would compose such works. More importantly, in order to succeed as forgeries, they must give the reader something that he might expect to find in a Pythagorean text. Thus, we can use these forgeries to say something about what philosophy was associated with Pythagoreanism in this period. We can discern some patterns in the forgeries. Several of them present some version of Aristotelianism or Platonism in a Doric dialect. Such is the

[10] Eduard Zeller, *Philosophie der Griechen* (1902) vol. I, part 1, p. 379; cf. vol. III, part 2, p. 127.

[11] Cf. Kirk, Raven and Schofield, *The Presocratic Philosophers* 2nd edition (Cambridge, 1995), 231.

case with the work of ps-Timaeus of Locris – presented as the source of Plato's Pythagorean learning in his dialogue of that name, it is really an epitome of that dialogue. Ps-Occelus' *On the Nature of the Universe* presents Aristotelian arguments for the eternity of the world, an Aristotelian theory of the elements, and other Peripatetic teachings under the guise of Pythagoreanism. Still others seek to blend Platonic and Aristotelian ideas into the kind of synthesis characteristic of Middle Platonism. Thus ps-Archytus' *On the principles* takes the three principles of the *Timaeus* and treats *khora* or the receptacle as matter, God as the efficient cause, and form as essence. In addition, however, it is claimed that 'number and proportion' bind together the opposing natures found in matter (cf. Alcinous, *Didaskalikos* 8.1-11.3). In general, then, many of these forgeries attempt to show that philosophical ideas found in thinkers of the Classical and Hellenistic periods are indebted to a more ancient Pythagorean tradition. Thus the motives for the production of the forgeries may not have been simply commercial. Perhaps those philosophers of the Hellenistic period who fancied themselves Pythagoreans did philosophy by writing works that they attributed to early members of the school, just as the later neoplatonists elaborated their own views in the context of the tradition of writing commentaries on the works of Plato and Aristotle.

The next layer of evidence are the doxographical reports of anonymous Pythagoreans preserved in Photius,[12] Alexander Polyhistor[13] (b. c. 105 BC) and, importantly, Sextus Empiricus.[14] What is striking about the Anonymi in these portions of Sextus is that they don't look much at all like the Pythagoreans discussed in the passage with which we have been concerned. Like the Anonymi in Photius, they are the kind of Pythagoreans who derive all things from a Monad and a Dyad. There is no mention of anything like *pneuma* or a World Soul. Alexander Polyhistor's report raises some expectations, since his Pythagoreans claim that the universe is 'animate (*empsychon*), intelligent and spherical', but then goes on to deny that everything has soul. Life is the result of heat, which is possessed by plants, though they have no soul. Soul is a portion of aether. The combination of heat and cold in aether, as well as the identification of God with Fate, suggests that

[12] *Bibliotheca*, cod. 249.438b-41b = pp. 237-42 in Thesleff.

[13] As reported by Diogenes Laertius, *Lives* VIII,24-33 = pp. 234-7 in Thesleff.

Alexander's Pythagorean doctrines result from some fusion with elements of Stoic thought.[15] Finally, Photius' Pythagorean doctrines stress the differences between human beings and other living and non-living things (Thesleff, p. 240, ll. 7-24).

Possibly as early as the first century BC, and certainly in the first century of the common era, we can talk of neo-Pythagoreans. We should perhaps include in this category Romans like Nigidius Figulus and Quintus Sextius and his son. Certainly we can include Moderatus of Gades (1st c. AD) and Nicomachus of Gerasa (early 2nd c.) and perhaps also Numenius (late 2nd c.). As Reale points out, the neo-Pythagoreans are to be distinguished from the authors of the *pseudepigrapha* by writing under their own names.[16] He also concludes, somewhat more controversially, that doctrinally they are more akin to members of the early Academy and, perhaps, to the tradition of Plato's "unwritten doctrines". Others have sought to find in Moderatus, Nicomachus and Numenius anticipations of Plotinus' neoplatonism.[17] Of course, these hypotheses need not be in tension – it depends on what you think about the relation between Platonism and neoplatonism. But that is not the question before us. I'll close this survey of "Pythagorean" texts by noting that neo-Pythagoreanism is effectively assimilated to neoplatonism in the work of Iamblichus (242-327).[18]

So where do we find our Pythagoreans? They must be known to Sextus, so that gives us a cut- off date probably somewhere in the last third of the second century. Moreover, the Pythagoreans we are looking for are distinguished by the fact that they accept something like a Platonic doctrine of a World Soul or a Stoic *pneuma* that runs through everything. Sextus calls it '*pneuma*' or 'breath', but then explains it by saying that it pervades

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[14] *Adv Math* X,249-84; *PH* III,152-7.

[15] Cf. M. Pohlenz, *Die Stoa* (Gottingen, 1959), vol. 1, pp. 386–90; vol 2, pp. 188–9 and J. Moreau, *L'Ame du Monde de Platon aux Stoïciens* (Hildesheim, 1965), p. 154, ff.

[16] Giovanni Reale, *A History of Ancient Philosophy IV: the schools of the imperial age*, trans. J. R. Catan (Albany, 1990), 237–63.

[17] Cf. John Whittaker, '*epkeina nou kai ousias*', *Vigiliae Christianae* 23 (1969), 91–104 and 'Neo-Pythagorianism and Negative Theology', *Symbolae Osloensis* 44 (1969), 109–25.

[18] D. O'Meara, *Pythagoras Revived: mathematics and philosophy in late antiquity* (Oxford, 1989).

everything ‘in the manner of a soul’. We find a very similar passage in Cicero’s *On the Nature of the Gods*:

> As for Pythagoras, he thought that there was a soul that was extended and ran through the whole of nature from which are souls are divided off, but he failed to see that the dividing off of human souls means the rendering and mutilation of god; moreover, that when their souls are unhappy (as is the case with most people) part of god is unhappy, which is not possible. Again, how does it happen that the souls of men are ignorant, if they are really god? Finally, in what fashion is god fixed in and diffused throughout the world if he is just soul? (I, 27–8)

Note that this passage too exhibits a kind of indifference between an omnipresent soul and an interpenetration by an extended breath, like the Stoic *pneuma*. The objection that claims that the view implies that god is cut up into pieces presupposes that the soul is extended. The implication of the final question, however, presupposes that this soul is not extended at all.

This passage from Cicero differs from the text in Sextus in not drawing any conclusions about the relation between humans and other parts of nature on the basis of the existence of this all-pervasive soul. Moreover, Cicero claims that the Pythagoreans regard this cosmic soul as god, and this is an element that is absent from Sextus’ discussion – though perhaps it would be apposite given the context. In spite of this, the two passages from Sextus and Cicero are sometimes cited alongside several of the *pseudepigrapha* as evidence of Stoic influences in the composition of these forgeries.[19] The extent of Stoic influence on the content of the *pseudepigrapha* has been strongly challenged by Thesleff, but, as we can see in the Cicero passage, there is a certain ambivalence between a notion of extended Stoic *pneuma* and something like a Platonic World Soul in the tradition of the *Timaeus*. If we are willing to accept the hypothesis that the reports of Pythagoreans in Sextus *Adv Math* IX, 127 and Cicero’s Pythagoreans draw on the same or similar sources, then we can forge some other links back in time.

[19] For example, Walter Burkert, *Lore and Science in Ancient Pythagoreanism*, trans. E. L. Minar (Cambridge, Mass., 1992), 124, n. 16.

Cicero was a friend of the Roman polymath M. Terentius Varro (116–27 BC). Cicero corresponded with him. His *Academica* is set in Varro's country villa. He probably drew on Varro's knowledge of history in the composition of *Brutus*. In 1879 Diels argued that Varro was acquainted with ps-Occelus *On the nature of the universe*.[20] It has been argued – convincingly to my mind – that ps-Occelus and ps-Philolaus *On the Soul* share a common source.[21] Both are concerned to argue for the eternity and indestructibility of the cosmos. In the course of this argument ps-Philolaus asserts that

> The cosmos endures from eternity and into eternity, one thing alone that is akin (*suggeneos*), most powerful and unsurpassed steering it (*kubernômenos*)[22]. The single cosmos is continuous (*sunexês*) and possesses respiration by nature (*physei diapneomenos*), moving endlessly in a circular fashion; and it has the origin of motion and change – one part being unchanging, the other changing. The changeless part passes from the soul that comprehends the whole (*to holon periexousas psychas*)[23] down to the moon, but the changeable part from the moon to the earth. (Diels Kranz B21 = Stobaeus 1.20.2, p. 172 Wachsmuth)[24]

Like the passage in Cicero and the one in Sextus, this quotation gives us both the notion of a soul of the world, together with the idea of breath.[25]

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[20] *Doxographa Graeci* 188–9. Varro apparently had views on the Pythagorean prohibition against the eating of beans (ap. Pliny, *Natural History* 18.118) – they contain the souls of the dead. Of course, this need not make him an expert on Pythagoras or any of the Pythagorean forgeries, since speculation about the symbolic significance of the various prohibitions began as early as Aristotle.

[21] W. Theiler, 'review of *Occellus Lucanus: text und kommentar* von R. Harder', *Gnomen* 2 (1926), 585–97; R. Beutler, 'Okellos' in A. Pauly, G. Wissowa and W. Kroll, *Real-Encyclopädie d. klassischen Altertumswissenschaft* 17 (1936), 2361–2380.

[22] For the active sense with middle and genitive, cf. Aristotle, *Problems* 964b17.

[23] Cf. Plato, *Timaeus* 31A for '*periexein*' as 'comprehend' or 'encompass'. It could also have the sense of surround, as if the soul were an outer layer of the universe and not something that runs through it.

[24] This fragment of Philolaus has long been thought to be spurious. *Fragmente der Vorsokratiker* prints it as such. The first to deny its authenticity was Zeller *Philosophie der Griechen* vol I part 1, 369, n. 3. Cf. Thesleff *Texts* 150; Burkert, *Lore*, 242, n. 21 for further references.

[25] J. Moreau (*op. cit.*) notes the similarity between the world soul of Plato's *Timaeus* and the Stoic pneuma in this passage. However, Moreau thinks that the intermediate between these is the biological dynamism of Aristotle. Referring the passage just quoted he says: 'On retrouve exactement ici le dynamisme biologiste d'Aristote, qui sera celui des Stoïciens.' (p. 147) Moreau's view of Aristotle's biological dynamism and debt to Platonism is influenced by the Platonism he finds in *de Philosophia* on the divinity of the aether (p. 120).

In a similar context, ps-Occelus argues that the cosmos is eternal since it cannot be destroyed either by what is outside it or by what is within it. There is nothing outside.

> Neither can it be corrupted by the things within it. For this will make it necessary for these things to be considered greater and more potent than the universe. But this is not the case. For all the other things are led by (*agetai*) the universe and on account of this they are preserved and brought into harmony, and they possess life (*bion*) and soul. (*De univ. nat.* 128,18-21, Thesleff)

The pan-psychist or pan-theistic flavour of this passage is echoed in another fragment from ps-Occelus *On the law*.

> As life comprehends the bodies of living things and the cause of this is soul, so harmony comprehends the cosmos and the cause of this is god. Similarly, agreement comprehends households and cities and the cause of this is law. Therefore there is a certain sort of cause or nature through which all the things in the cosmos have been joined together. (*De leg*. 124, 18-21, Thesleff = Stobaeus 1.13.2, p. 139 Wachsmuth)

And the passage goes on to echo the distinction between the heavens and the sublunary realm observed in the passage from ps-Philolaus.

What can we conclude from all of this? Nothing *too* definite, I suggest. Perhaps just the following: we find texts that probably date from the third/second century BC that echo the kind of view found in Sextus *Adv Math* IX, 127. These forgeries may be indebted to Stoicism, or perhaps to Plato's notion of a World Soul. Or perhaps our authors suppose that the Platonic and Stoic views come to more or less the same thing – though the Stoics and the Platonists would vigoursly deny this![26] In either event, there is a metaphysical basis for the claim that humans are somehow connected with the totality of existence. If you accept my reasons for supposing that Sextus is reporting the views of some actual Pythagoreans, then at some point someone associated with (or some forger who wished to present himself as associated with) this school drew the normative conclusion that we

[26] For a study of the way in which Plato's *Timaeus* influenced Stoic cosmology, see Gretchen Reydams-Schils, *Demiurge and Providence: Stoic and Platonist readings of Plato's Timaeus* (Turnhout, 1999). The historical line of influence here is rather tenuous, perhaps through Theophrastus, but the structural similarities of Stoic and Platonist cosmology are clear.

ought to refrain from eating animals on the basis of this metaphysical picture of human connectedness. Whoever these Pythagoreans may have been, they were the first thinkers in western philosophy to argue explicitly for such a normative conclusion on the basis of a metaphysics that is consonant with deep ecology. Moreover, they were innovators within their own tradition as well – or as much of a tradition as one supposes there was in the case of Pythagoreanism from the sixth to the second century. I noted above that none of our evidence for Pythagoras or early Pythagoreans implies abstinence from the eating of *all* animals. Damionos Tsekourakis argues that where Pythagoreanism is connected with vegetarianism, the arguments for this practice are based on either the transmigration of souls to animal bodies or on religious reasons.[27] Sextus runs our Pythagoreans' argument together with considerations that arise from the transmigration of souls, but as we noted above, this is a very different kind of argument. This makes the passage from Sextus unique among our reports of Pythagorean philosophy.

4. One man's modus tolens is another man's modus ponens

Sextus' objection to our Pythagoreans seems awfully obvious. Recall that he claims that if the all-pervasive soul or breath were the foundation of relations of justice between all things, then we could be unjust to trees or rocks – an idea he supposes is absurd. But as any deep ecologist will tell you, this misses the point in an important sense. I will conclude by noting some odd features of Sextus' treatment of our vegetarian Pythagoreans and speculate a bit about how they themselves might have framed their normative conclusion.

Notice how Sextus contrasts the position of the Pythagoreans with that of the Stoics. In some sense, the Stoic view on animals sets the agenda for the discussion of vegetarianism in antiquity. The Stoics assume that if we ought to refrain from eating animals, this can only be because a relation of justice obtains between us and them. The idea that it is unkind or cruel seems not to make a difference unless it can be shown that it is cruelty that is unjust. They argue that we have no relation of justice to anything that lacks reason. Since humans are essentially rational, what is required to be akin or assimilated to us (*okeion*, *suggenes*) is rationality. The Epicureans hold a similar position:

[27] 'Vegetarianism in Plutarch's *Moralia*', *Aufstieg und Niedergang der Römischen Welt* II.36 (1987), 366–93.

we owe no duties of justice to irrational animals since they are incapable of entering into a social contract with us. In each case, the focus is on individuals – humans or other animals – and in each case, the operative moral concept is justice.

Within such a framework, it is difficult to articulate the idea that we might have *some sort* of moral duty towards the entirety of nature. After all, justice is contrasted with injustice and if I do you an injustice, I do you a harm. It is difficult to see how things which have no interests – like coups of old-growth forest – can be treated *unjustly*. Deep ecologists are urging us to take seriously the idea that our internconnectedness with nature gives us a moral reason to respect old-growth forest. But this idea of respect and harmony with nature is not easily expressed within the context of a moral system in which the central notion is justice.

Those writers in the Platonic tradition who argue against eating animals – Plutarch and Porphyry – more or less let their opponents set the terms of the debate. The bulk of their writing on this topic is directed toward showing that animals really are rational. Thus they can be akin to us or enter (implicitly) into a kind of social contract. For this reason, we as individuals owe individual animals a kind of justice. There are, of course, other lines of argument in these writers. Porphyry in particular is at pains to show that the killing of animals is not required for sacrifice to the gods. He also argues that the consumption of meat feeds the unruly passions that the Platonic philosopher is trying to keep firmly under control. The point I want to make here is that the moral argument against killing animals centres around the concept of justice and is largely conducted on the basis of his opponents' presuppositions.

With this is mind, let us turn to some of the odd turns on phrase in Sextus' report of our Pythagoreans. Notice the way he qualifies the kind of moral vocabulary that he uses in talking about them. If there is the all pervasive breath or soul, then we have a 'kind of association' (*tina koinōnia*) with irrational animals. There will be a 'sort of justice' (*tis dikaiosunê*). If we eat irrational animals we do what is 'both-unjust-and-impious' (*adikêsomen te kai asebêsomen*). It is as if Sextus is dimly registering that his standard moral concepts do not exactly fit the case under discussion. I want to argue that this is right: our Pythagoreans do espouse a normative conclusion broader than the prohibition

against eating meat. But, as with many deep ecology views that take the non-instrumental value of nature seriously, it is hard to state this conclusion in a meaningful way in the context of anthroprocentric moral philosophy. I think Sextus' evasive and vague language registers the fact that he is not quite sure *how* to explain what these Pythagoreans believe. In fact, I suspect that they already saw the implication that Sextus regards as grounds for a modus tolens – that if the breath or soul interpenetrates everything then there is *a sense* in which we owe justice to rocks and trees. I have one further piece of evidence for this conclusion, but it requires an interpretive stretch forward in time to see it.

Notice that in his report of what the Pythagoreans think Sextus concentrates on the case of sacrificing and eating animals. But he seems to betray the fact that this is not the Pythagoreans *only* normative conclusion. In IX,128 he says that from their metaphysical position on the breath or World Soul they *also* exhort us to 'abstain from things that are living or ensouled' (*enthen kai parêinoun…apechesthai tôn empsychôn*).[28] This sentence *follows* the claim that we do something unjust and impious if we kill irrational animals and eat their flesh. But what can it mean to say that we also ought to 'abstain from living or ensouled things' – especially in this context? Given that the *pneuma* interpenetrates everything 'in the manner of a soul', one might infer that in a very extended sense, all things are ensouled. Even if we grant that 'in the manner of a soul' simply describes the *way* in which the breath interpenetrates everything, it remains that in the Stoic's technical use of this term, soul is one kind of breath. A later text containing the imperative to 'abstain from ensouled things' may provide a clue.

The phrase *apechesthai tôn empsychôn* is attributed to Pythagoras on the basis of this passage, but also on the basis of what Iamblichus (c. 240–325 AD) says in his *Life of Pythagoras*.[29] In chapter 24, Iamblichus is trying to make sense of the various traditions surrounding the Pythagorean diet. In truth, these traditions seem to be inconsistent – or at

[28] The word '*kai*' can of course function in many ways. I'm here assuming that its proximity to *enthen* gives it the adverbial sense of 'also'. Compare the following passages in Sextus where the construction is used to connect two theses A and B which are distinct, but where it is alleged that A implies B or provides some weaker evidential link: *Adv Math* VII,194; 424; VIII,9; IX,19.

[29] The phrase is actually quite rare. It is attributed to both Pythagoras and Empedocles on the basis of this passage. It occurs twice in Iamblichus: once in his *Life of Pythagoras* and again in his reply to Porphyry in *On the Mysteries of Egypt* in a context where it seems he is quoting Porphyry's *Letter to Anebo*. Porphyry uses the phrase twice in *On Abstinence from Animal Foods*, I.13; II.24.

least the expression of assorted religious beliefs rather than a carefully thought out philosophical position. The dietary prohibitions do not require complete abstinence from animal foods and the tradition that Pythagoras himself sacrificed animals arises as early as the fourth century. As Burkert says:

> That the "Pythagorean life" developed from living custom, with all its complexity and paradox, rather than from clearly articulated doctrine, can be seen very clearly in the rules about abstinence from meat.[30]

Burkert credits later biographers like Nicomachus and Iamblichus with trying to make the reports of these practices consistent by positing the existence of different degrees of membership within the Pythagorean sect. Part of Iamblichus' attempt to do this is interesting given our present line of inquiry.

Iamblichus alleges that the 'more theoretical' and 'law-giving' Pythagoreans abstained completely from meat, while others observed less stringent dietary restrictions. The justification for these restrictions is interesting since it evokes the considerations raised in the text from Sextus Empiricus. Iamblichus says that the most theoretical of the Pythagoreans abstain from animal foods so as not to 'injure kindred living things' (*tôn suggenôn zôion*), for there is a 'congenital bond (*suggenikê metochê*) of living things since through sharing life and the same elements and the mixture arising from these they are yoked together with us as it were (*hôsanei*) by brotherhood (*adelphotêti*)' (*Vit* 24.107-9).

Of course, Iamblichus' justification for why these select Pythagoreans should abstain from eating animals doesn't explain why there should be any exceptions. One possible explanation is that Iamblichus' material on Pythagoreanism tries to create a synthesis of various sources that aren't particularly consistent. Given the similarities that we have noted between Sextus' report in *Adv Math* IX,128 and the line of argument in Iamblichus *Vit* 24.107-9, as well as the verbal similarities of the 'refrain from ensouled things' formula, it does not seem unreasonable to suppose that Sextus and Iamblichus are drawing on a common source. In the previous section, I have urged the conclusion that this source is related to some of the forgeries we possess from the Hellenistic period and which incorporate Stoic and/or Platonic elements.

At the start of this section, I raised the suspicion that Sextus' Pythagoreans may urge a more substantive normative conclusion than simple vegetarianism. The previous passage from Iamblichus doesn't take us any further toward understanding what these further normative claims might have been, but it does forge a tentative link between Sextus' report and Iamblichus' reconstruction of Pythagorean doctrine. If that link holds, then the following passages from Iamblichus' *Exhortation to Philosophy* may give us some insight into a Pythagorean moral framework that is relevantly similar to deep ecology.

At the end of his exhortation to philosophy, Iamblichus provides interpretations of the oral teachings or *akousmata* of the Pythagoreans such as 'do not urinate facing the sun' or 'do not allow swallows to nest in your house'. The interpretations are largely allegorical. Here is what he has to say about the last two

> 38. Transplant mallows[31] into your garden but do not eat them.
>
> This symbolises that such plants turn with the sun and that this is worthy of our attention. It also adds 'transplant' – that is observe its nature, its tendency towards and sympathy with the sun. But don't rest content or remain with just this, but transfer and 'transplant' as it were your conception to plants and herbs of a similar kind, but also to animals which are not kindred and even to stones and rivers and simply to all sorts of natural objects (*pasas physeis*). For you will discover that they are wonderfully abundant, having many manners of existence. To the person who begins from the observation of mallows, just like one begins from a root or starting point, this symbolises the unity (*henôsis*) and breathing in unison (*sumpnoias*) of the cosmos.
>
> 39. Abstain from ensouled things.
>
> The words 'to refrain from ensouled things' (*empsychôn apexou*) exhort us toward justice and respect for all kindred things (*suggenous*), and acceptance

[30] *Lore and Science in Ancient Pythagoreanism*, trans. E. L. Minar (Cambridge, Mass., 1992), 180.

[31] Mallows are a genus that includes okra, hibuscus, hollyhocks and cotton. The distinctive property of being heliotropic is also noted by a later member of the neoplatonic school, Proclus. Cf. *De Sacrificio et Magia* 148,10.

of related living beings (*tên tês homoios zôês apodoxê*) and many other such duties.[32]

Note that here as in the passage from Sextus we have idea that the world constitutes a unity which is associated with a common breath or *pneuma*. We found the same idea in Cicero's report, as well as in the forgeries attributed to Ocellus and Philolaus. We also have the 'refrain from ensouled things' formula common to the other Iamblichus passage and the passage from Sextus.

It has frequently been noted that Iamblichus' *Exhortation* excerpts all manner of works, including most famously Aristotle's work of the same name. Some of the Pythagorean *akousmata* that Iamblichus interprets are preserved in earlier sources and we know that the tradition of understanding them as allegory arose very early.[33] However, the oral teaching on mallows that Iamblichus allegorises here is unique among our various lists of Pythagorean *akousmata*.[34] Given the way in which the *Exhortation* was composed, it seems not unreasonable to suppose that Iamblichus is here borrowing from a source common to all these texts. I have argued that these thematic commonalities allow us to suppose that this common source was a "deep green" Pythagorean forgery of the Hellenistic period. I have one further piece of speculative evidence for this suggestion. The Greek word for mallow permits of two spellings. In Iamblichus' other reference to mallows in his *Life of Pythagoras* (supra n. 37) we find a different spelling than in the passages from the *Exhortation*. One explanation, of course, is that our manuscripts derive from different copyists, one of whom corrected Iamblichus' consistent use in accordance with his own conception of proper spelling. The other possibility is that Iamblichus himself

[32] I take '*kai pros hetera toauta pleiona*' to refer back to the *apodoxê* we have to similar animals. Des Places (*Jamblique: Protreptique* (Paris, 1989)) similarly translates as follows: 'à accueillir la vie pareille à nôtre et à bien d'autres devoirs semblables.'

[33] Anaximander of Miletus, who lived around 400 BC, was credited with a work of this nature. Cf. Burkert, 166–92.

[34] The admonition to transplant mallows occurs only in Iamblichus' *Exhortation* and not in our other lists of Pythagorean *akousmata* in Diogenes Laertius and Porphyry. In fact, Porphyry's remarks on mallows seem inconsistent with what Iamblichus reports. At *Vit*. 34.10 Porphyry claims that Pythagoras ate mallows. The context is praise of Pythagoras' self-sufficiency and the story is probably meant to recall Hesiod's *Works and Days* 40–41. Iamblichus' biography claims that Pythagoras urged abstinence from mallows on the grounds that they were 'the primary messengers and indicators of sympathy between celestial and terrestrial gods' – presumably another reference to their heliotropic properties. Cf. Photius, *Bib*. 242, 344a35.

spelled it differently in the two cases. Why would he do that? Perhaps because he was copying the passage in the *Exhortation* from some other source. Perhaps it was because he was working from the very same text that Sextus drew upon in his report in *Adv Math* IX?

What inferences can we draw if we suppose that all these texts represent the influence of some common source? It would mean that the Pythagoreans of Sextus' passage already anticipate the implication that we have some sort of duties toward all aspects of nature. What exactly are those duties? How do we respond morally to the recognition of the connectedness of the entire cosmos? The best answer, I think, is that it is simply not clear. But it isn't clear to present-day deep ecologists either. It is one thing to come to the recognition that even inanimate nature has *some moral standing*. It is quite another to see what that actually implies in any concrete situation. It is thus no surprise that Sextus can ridicule the Pythagorean position by saying that surely we don't do any injustice to individual rocks or trees in timber-cutting or mining. The more nuanced normative position that I suspect our Pythagoreans espoused was something more like respect and care for the *system* of nature – note their emphasis on unity and connectedness. This sort of respect and care for the system is, of course, compatible with sometimes cutting down a particular tree. It is incompatible, perhaps, with destroying entire ecosystems. ('Ecosystem' is our word, not theirs, but it seems to me that what the Iamblichus passage on mallows invites us to consider is the interconnections in nature which is part of what makes up an ecosystem.) But since these systems are, at any given moment, constituted by individual trees or rocks, it is relatively easy to try to reduce the sensible normative claim to the silly one. I suspect that this is what Sextus has done in his objection. Moreover, I think he knows that he is not being dialectically fair and his evasive and qualified language reveals this. In those cases where one philosopher's modus tolens is another's modus ponens, the parties to the disagreement typically understand the propositions in question in slightly different ways.

Conclusion

Much has been written about the affinities between various ancient philosophers and the deep ecology movement. As far as I know, the argument related by Sextus Empiricus is the first time we have a documented case where a normative conclusion about our treatment of

non-human nature is explicitly drawn from a metaphysical position that underwrites a non-anthroprocentric theory of value. I have drawn some inferences about the ultimate source of the argument that Sextus summarises. I believe that a historically responsible case can be made for identifying it as a document related to the eclectic Pythagorean forgeries of the Hellenistic period. Somewhat more speculatively, there is some evidence to suggest that Sextus' Pythagoreans espoused a normative conclusion broader than simple vegetarianism – one more consonant with the kind of normative conclusions involving respect for nature that are urged by contemporary deep ecologists.